UNIVERSITY GRANTS COMMISSION, NEW DELHI
FUNDED
MAJOR RESEARCH PROJECT
ENTITLED

"MEIOFAUNAL DIVERSITY, POPULATION DENSITY AND BIOPOTENTIAL ASSESSMENT IN FRESHWATER RESERVOIRS OF MARATHWADA REGION"

[NO. F. 33-328/2007 (S.R.)]

FINAL REPORT

BY
PROF. GUNDERAO K. KULKARNI
(PRINCIPAL INVESTIGATOR)
AND
DR. SATISH S. MOKASHE
(CO-PRINCIPAL INVESTIGATOR)

DEPARTMENT OF ZOOLOGY,
DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY,
AURANGABAD-431004 (M.S.)

Annexure -III

UNIVERSITY GRANTS COMMISSION
BAHADUR SHAH ZAFAR MARG
NEW DELHI – 110 002.

Final Report of the work done on the Major Research Project.

1. Project report No. :**Final**

2. UGC Reference No. :**F. 33-328/2007(SR)** dated **10-03-2008**

3. Period of report: from :**01-04-2008** to **31-03-2011**

4. Title of research project :**"Meiofaunal diversity, population density and its biopotential assessment in freshwater reservoir of Aurangabad region"**

5. (a) Name of the Principal Investigator: **PROF. GUNDERAO K. KULKARNI**
   (b) Name of Principal Investigator**:** **DR. SATISH S. MOKASHE**

6. Deptt. and University/College: **Department of Zoology, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad-431004 (M.S.)**

7. Effective date of starting of the project: **June, 2008**

8. a. Grant approved and expenditure incurred during the entire period of the report:
   a. Total amount approved : **Rs. 8,63,600/-**

   b. Total expenditure : **Rs. 8,66,377 (Rs -2,777/- due from UGC)**

   c. Report of the work done : **(Please see Annexure-I)**

i. Brief objective of the project:

1. To survey freshwater reservoirs of Marathwada region with special reference to four districts of Aurangabad zone.
2. To survey and study physico-chemical parameters of selected major freshwater reservoirs.
3. To survey the meiofauna (free & benthic) available in selected major freshwater reservoirs.
4. To record and quantity the current diversity of meiofauna.
5. To study the density, biomass, ecological indices and distribution of meiofauna.
6. To relate the meiofaunal diversity and density to physico-chemical parameters of habitats.
7. To assess the level of pollution in selected reservoirs through meiofaunal diversity and density.

ii. Work done so far and results achieved and publications, if any, resulting from the work:

PUBLICATIONS:

1. Rumana S. Shaikh, S. S. Mokashe & G. k. Kulkarni (2010) Zooplankton diversity in freshwater bodies around Aurangabad, Maharashtra. *Flora & Fauna,* 16)2), 249-256.
2. G. K. Sontakke, S. S. Mokashe & G. k. Kulkarni (2010) Freshwater ostracods from Kagzipura lake of Aurangabad district, Maharashtra, *Natn. J. Life Sci.* 7(2), 99-102.
3. P. S. Kumar, V. V. Vaidya & G. K. Kulkarni (2010) Ostracod, *Cyprinotus nudus* as bioindicator of pollution in freshwater reservoirs "Adhala" at Akole, *J. Environ. Bio-Sci.* 24(2), 171-173.
4. A. D. Harkal, Gunawati Arak, S. S. Mokashe & G. k. Kulkarni (2011) A report on micro-invertebrates associated with littoral macrophytes in Kagzipura lake, *Rec. Res. Sci. & Technol.* 3(3), 14-16.
5. G. K. Sontakke, S. S. Mokashe & G. k. Kulkarni (2011) Cladoceran fauna of Mombatta & Kagzipura lakes from Aurangabad district, Maharashtra, *Flora & Fauna,* **(In press).**

IN CONFERENCE PROCEEDINGS:

1. Rumana S. Shaikh, S. S. Mokashe & G. K. Kulkarni: "Studies on zooplankton diversity in Kagzipura freshwater reservoir of Aurangabd, Maharashtra", International Conference on Advances in Biosciences: From Darwin to Dolly and Beyond….12th to 14th February **2009**, at SRT Marathwada University, Nanded.
2. Rumana S. Shaikh, S. S. Mokashe & G. K. Kulkarni: "Study of zooplankton diversity in two freshwater bodies around Aurangabad, Maharashtra", National level seminar on Biodiversity: Emerging……29th to 30th August, **2009**, at Majalgaon, Dist. Beed, (M.S.).
3. Rumana S. Shaikh, S. S. Mokashe & G. K. Kulkarni: "Phenological study of the copepoda (*Mesocyclops leuckarti*) of a freshwater lake Mombatta at Daultabad, Aurangabad, 97th Indian Science Congress, 1st to 2nd February, **2010**, at University of Kerala, Tiruanantpuram.
4. Rumana S. Shaikh, S. S. Mokashe & G. K. Kulkarni: Zooplankton diversity in freshwater lake Mombatta at Daulatabad of Aurangabad district, National conference on Natural Resource Management, 1st and 2nd February, **2010**, at North Marathwada University, Jalgaon (M.S.).
5. Rumana S. Shaikh, S. S. Mokashe & G. K. Kulkarni: "Effects of different diets on population growth of cultured cyclopoid copepod, *Mesocyclops leuckarti* (Claus, 1857) 21st All India congress of Zoology & National seminar on Biodiversit…….21st to 23rd December, **2010**, at CIFRI, Barrackpore, Kolkata.
6. Rumana S. Shaikh, S. S. Mokashe & G. K. Kulkarni: "Freshwater Gastrotrich fauna in Kagzipura, Aurangabd district", National seminar on Advances in Aquatic biology12th and 13th March, **2011**, at Bundelkand University, Jhansi, Uttar Pradesh.

iii. Has the progress been according to original plan of work and towards achieving the objective. **YES**

iv. Please indicate the difficulties, if any, experienced in implementing the project : **NIL**

v. If project has not been completed, please indicate the approximate time by which it is likely to be completed. A summary of the work done for the period (Annual basis) may please be sent to the Commission on a separate sheet: **NOT APPLICABEL**

vi. The project has been completed: Summary of the findings of the study: [One bound copies of the final report of work done are enclosed]

SUMMARY OF THE PROJECT WORK DONE:

FRESHWATER RESERVOIRS OF AURANGABAD:

1. Mombatta Lake (latitude 19^0 57’ 42” N and longitude 75^0 13’ 24” E) is located 14 km away from Aurangabad at Daulatabad valley in Khultabad Taluka. The Lake has a maximum depth of 8.30 meter spread across approximately 7.2 Sq. Km. The Lake is situated at foot hills in Daulatabad valley containing grassland mixed with tree vegetation and used for aquaculture.

Meiofaufanal Group Dominance:
During 2009-2010 (1st year) : Copepoda > Cladocera > Rotifera > Ostracoda**.**
During 2010-2011 (IInd year): Rotifera > Copepoda > Cladocera > Ostracoda

2. Kagzipura Lake (latitude 19^0 57’ N and longitude 75^0 15’ E) is located 25 km away from Aurangabad city near Kagzipura village, Tal, Khultabad. The reservoir is having a depth of about 8 to 9 meters with a large catchment (7.2 Sq. Km.) area and used for irrigation and fishing.

Meiofaufanal Group Dominance:
I st Year: Cladocera > Copepoda > Rotifera > Ostracoda.
II nd Year: Rotifera > Cladocera > Copepoda > Ostracoda

3. Sukhana reservoir [Latitude **-** 9^0 49’ N and Longitude **-** 75^0 31’ E] is situated 25 km away from Aurangabad. near Chitepimpalgaon on Beed road,in hilly are having a large catchments area containing grassland mixed with tree vegetation and used for irrigation and aquaculture..

Meiofaufanal Group Dominance:
I st Year: Copepoda > Cladocera > Rotifera > Ostracoda.
II nd Year: Cladocera > Copepoda > Rotifera > Ostracoda

4. Nath Sagar Jayakwadi dam, also known as **Nath Sagar** is located near Paithan (19°29′6″N 75°22′12″E) about 50 km from Aurangabad, built on river Godavari. Its area is 1300 km². It supplies water to Aurangabad City and generates hydroelectricity power.

Meiofaufanal Group Dominance:
I st Year: Copepoda > Rotifera > Ostracoda > Cladocera.
II nd Year: Copepoda > Rotifera > Cladocera > Ostracoda

FRESHWATER RESERVOIRS OF VAIJAPUR TALUKA OF AURANGABAD DISTRICT:

Vaijapur is a taluka about 75 km from Aurangabad district. Four reservoirs are selected in which two are located at Vaijapur town and other two are in near by villages namely Kolhi and Bhatana.

1 & 2. Narangi and **Sarangi** reservoirs are at 19° 56'30"N and 74° 42' 54"E. They are a medium size project on Narangi – Sarangi river junction, for water supply to the Vaijapur town. It has a total canal length of 10 km which would irrigate an area of 1639 acres. These two reservoirs are 2.7 km away from each other.

Meiofaunal Group Dominance at Narangi Reservoir:
I st Year: Rotifera > Copepoda > Cladocera > Ostracoda.
II nd Year: Copepoda > Rotifera > Ostracoda > Cladocera.
Meiofaunal Group Dominance at Sarangi Reservoir:
I st Year: Rotifera > Copepoda > Cladocera > Ostracoda.
II nd Year: Rotifer > Copepoda > Cladocera > Ostracod

3. Dheku reservoir is located at 20° 6' 21"N and 74° 55' 57"E. on a tributary of Dheku river near village Bhatana in Vaijapar tahsil. The total area of irrigation covers 3561 acres. The reservoir has one canal of a length of 15 miles on the left flank irrigating about 6700 acres from 16 villages in Vaijapur tahsil.

Meiofaunal Group Dominance :
I st Year: Rotifera > Copepoda > Cladocera > Ostracoda.
II nd Year: Copepoda > Cladocera > Rotifera > Ostracoda

4. Kolhi also called Shiveyogi reservoir is located at 20° 3' 30" N and 74° 49' 5"E 19 km away from the Vaijapur Taluka.. It is a Lake with scenic beauty and undiscovered wild life of India.

Meiofaunal Group Dominance :
I st Year: Rotifera > Copepoda > Cladocera > Ostracoda.
II nd Year: Copepoda > Rotifera > Ostracoda > Cladocera.

FRESHWATER RESERVOIRS OF KANNAD TALUKA OF AURANGABAD DISTRICT:

Kannad is a Taluka place about 60 km away from the district Aurangabad. Two reservoirs are selected for the study.

1. **Ambadi** reservoir is located at 75^0 03' N and 20^0 16' E. It is a medium size project on Ambadi River for water supply to the Kannad Taluka. It irrigates an area of 3709 hector having a large catchment area [141 sq. km].
   Meiofaunal Group Dominance:
   I st Year: Copepoda > Rotifera > Cladocera > Ostracoda.
   II nd Year: Copepoda > Rotifera > Ostracoda > Cladocera.

2. Shivna Takali reservoir [Length is 790 meter and height is 14.87 m] is located at 74° 40' 15" N and 20° 03' 20" E. It is a freshwater reservoir for water supply to the Takali village in Kannad Taluka. It has a large catchment area of 42 sq. km.

Meiofaunal Group Dominance:
I st Year: Rotifera > Copepoda > Cladocera > Ostracoda.
II nd Year: Rotifera > Ostracoda > Cladocera > Ostracoda.

FRESHWATER RESERVOIRS OF JALNA DISTRICT:

Jalna is a district place about 55 km away from the district place Aurangabad. Five reservoirs are selected for the study, in which three are located at Jalna city and other two are in Ambad taluka of Jalna district.

1. **Dudhana** reservoir is located at 75^0 42' N and 19^0 54' E. It is a medium size project on Dudhana River for water supply to the Badnapur Taluka 30 km from Jalna district. It irrigates an area of about 5708 acres having a large catchment area of 248 sq.km.

   Meiofaunal Group Dominance:
   I st Year: Copepoda > Cladocera > Rotifera > Ostracoda.
   II nd Year: Rotifera > Cladocera > Ostracoda > Copepoda

2. **Ghanewadi** reservoir [Length is 790 meter and height is 14.87 meter] is located at 74° 40' 15" N and 20° 03' 20" E and is a freshwater reservoir for water supply to the Jalna district. It has a large catchment area.

   Meiofaunal Group Dominance:
   I st Year: Copepoda > Cladocera > Rotifera > Ostracoda.
   II nd Year: Rotifera > Copepoda > Ostracoda > Cladocera.

3. **Motibagh** Lake is located at 19° 50' 29" N and 75° 5' 56" E in the heart of Jalna city. It also has a large catchment area of about 248 sq.km.

   Meiofaunal Group Dominance:
   I st Year: Copepoda > Cladocera > Rotifera > Ostracoda.
   II nd Year: Cladocera > Copepoda > Ostracoda > Rotifera

FRESHWATER RESERVOIRS OF AMBAD TALUKA OF JALNA DISTRICT:

1. **Dhangar Pimpri** reservoir is located at 19^0 50' 29" N and 75^0 51' 56" E. It is a medium size project for water supply to the Dhangar Pimpri village in Ambad Taluka 25 km away from Jalna district place. It irrigates an area of about 5708 acres having a large catchment area of 298 sq.km.

   Meiofaunal Group Dominance:
   I st Year: Copepoda > Rotifer > Ostracoda > Cladocera.
   II nd Year: Copepoda > Rotifera > Cladocera > Ostracoda.

2. **Ambad** reservoir is located at 19^0 35' 58" N and 75^0 47' 49" E. It is a freshwater reservoir for water supply to the Ambad Taluka 25 km away from Jalna district place.

   Meiofaunal Group Dominance:
   Ist Year: Copepoda > Cladocera > Rotifera > Ostracoda.
   II nd Year: Cladocera > Copepoda > Ostracoda > Rotifera

FRESHWATER RESERVOIRS OF MAJALGAON OF BEED DISTRICT:

Majalgaon reservoir is located (between latitude 19^0 7' 54" N and longitude 76^0 7' 11" E), near Majalgaon Taluka of Beed district. The reservoir caters huge irrigation of about 1200 km^2 and also used fishing. During the present study reveals that 33 species of zooplankton were noted. In which

12 species of Rotifera, 09 species of Cladocera, 06 species of Copepoda and 06 species of Ostracoda. In which Ostracoda group are dominant in 2009-2010 and Rotifera are dominant in 2010-2011.

Meiofaunal Group Dominance:
I st Year: Ostracoda. > Rotifera > Cladocera > Copepoda.
II nd Year: Rotifera > Copepoda > Cladocera > Ostracoda.

vii. Any other information which would help in evaluation of work done on the project. At the completion of the project, the first report should indicate the output, such as (a) Manpower trained (b) Ph. D. awarded (c) Publication of result (d) other impact, if any

(a) Manpower trained: **Ms. Rumana S. Shaikh, Mr. Gajanan Sontakke and Mr. Ananta Harkal,** 3 research students have been trained to under take such work on meiofaunal diversity from any aquatic body with sufficient proficiency.

(b) Ph. D. awarded: **Ms. Rumana S. Shaikh**, who has worked as a project fellow, will be submitting her Ph. D. thesis entitled “” in sept. 2011.

(c) Publications: List given above.

ANNEXURE-1: MIEOFAUNA IN FRESHWATER RESERVOIRS OF MARATHWADA REGION

AURANGABAD DISTRICT:
KAGZIPURA RESERVOIR

30/04/2009 19:52

Kagzipura reservoir (Early Summer)

06/07/2009 19:20

Kagzipura reservoir (Early Monsoon)

11/10/2009 08:05

Kagzipura reservoir (Winter)

Topography of Kagzipura Reservoir

Kagzipura Lake is located (between latitude 19^0 57’ N and longitude 75^0 15’ E), near Kagzipura (Kagaspura) village, Tal, Khultabad in Aurangabad district, Maharashtra state. The reservoir is 25 km away from Aurangabad city, having depth about 8 to 9 meters with a large catchments 7.2 Sq. Km. area and used for irrigation and fishing.

Meiofauna from Kagzipura fresh water reservoir around Marathwada region during Feb. 2009 to Jan. 2011.

Rotifera	Cladocera	Copepoda	Ostracoda
Branchionus calyciflourus (Ehrenchionus, 1838) *Branchionus caudatus* (Barrios & Dadaly, 1894) *Branchionus forficula* (Sudzuki, 1955) *Branchionus angularis* (Grosse, 1851) *Branchionus bidentata* (Anderson, 1889) *Keratella trophica* (Apstein, 1907) *Trichotria teteractis* (Ehrenberg, 1830) *Polyarthra major* (Carliu, 1943) *Filinia terminalis* (Echrenberg, 1834) *Asplanchna periodontal* (Goss, 1850) *Lepadella sp.* (Ehrenberg, 1834) *Lecane luna* (Muller, 1776) *Philodina sp.* (Bryce, 1906) *Trichocerca sp.* (Segers, 1993)	*Moina macrocopa* (Straus, 1820) *Moina micrura* (Kurz, 1874) *Diaphanosoma oreintalis* (Korovchinsky, 1986) *Diaphanosoma sursi* (Richard, 1894) *Daphnia longirimis* (Muller, 1785) *Macrothrix rosea* (Baird, 1843) *Leydigio acanthocercoids* (Fischer, 1854) *Ceriodaphnia cornuta* (Sars, 1885) *Chydorous spharicus* (Muller, 1776) *Plexares similis* (Vavra, 1900)	*Heliodiaptomus viduus* (Gurney, 1916) *Trpocyclops prasinus* (Fischer, 1860) *Paracyclops fermbrialis* (Thompson, 1882) *Mesocyclops leukarti* (Claus, 1857) *Mesocyclops hyalian* (Rehberg, 1880) *Eodiaptomus japonicas* (Keifer, 1932)	*Hemicypris fossulata* (Vavra, 1897) *Cyclocypris globosa* (Sars, 1863) *Cyclocypris kinkadia* (Dobbin, 1941) *Cypric median* (Hoff, 1942) *Physocypris ferfuracea* (Brady, 1896) *Eucypris biaponsa* (Victor, & Michael, 1975) *Cyprinottus nuduus* (Brady, 1885) *Candona sp.* (Baird, 1845)

Seasonal average value of Population density of Meiofauna (org/lit) in Kagzipura Fresh water reservoir during Feb 2009 to Jan 2010.

Seasons / Zooplankton	Summer (Feb.2009-May2009)	Monsoon (Jun.2009-Sept.2009)	Winter (Oct.2009-Jan.2010)
Rotifera	**56** Min. April (22) Max. May (140)	**81.5** Min Sept. (54) Max. June (122)	**68.25** Min. Oct. (56) Max. Jan. (79)
Cladocera*	**242.72** Min. Mar. (199) Max. May (290)	**283.5** Min. Sept. (202) Max. July (460)	**178.25** Min. Jan. (169) Max. Oct. (188)
Copepoda	**166** Min. May (140) Max. April (220)	**198** Min. Sept. (96) Max. June (326)	**73.25** Min. Jan. (59) Max. Oct. (88)
Ostracoda	**63.25** Min. Feb. (41) Max. May (120)	**51.5** Min. Sept. (32) Max. June (68)	**35.5** Min. Oct. (30) Max. Nov. (42)

Note: * Shows the Dominant group.

Seasonal average value of Population density of Meiofauna (org/lit) in Kagzipura Fresh water reservoir around Aurangabad during Feb 2010 to Jan 2011.

Seasons / Zooplankton	Summer (Feb.2010-May2010)	Monsoon (Jun.2010-Sept.2010)	Winter (Oct.2010-Jan.2011)
Rotifera*	**39.5** Min. May (26) Max. Apr. (56)	**63.5** Min. Sept. (16) Max. Jun. (155)	**8** Min. Jan. (8) Max. Oct. (20)
Cladocera	**23** Min. Apr. (12) Max. Feb. (40)	**31.5** Min. Jun. (16) Max. Aug. (52)	**18** Min. Nov. (12) Max. Oct. (28)
Copepoda	**29** Min. May (20) Max. Mar. (40)	**31** Min. July (16) Max. Aug. (42)	**11** Min. Nov. (10) Max. Jan. (22)
Ostracoda	**8** Min. (Absent) Max. Feb (32)	**27.5** Min. Jun. (18) Max. Sept. (40)	**23.5** Min. Dec. (12) Max. Jan. (36)

Note: * Shows the Dominant group.

Group Dominance

I st Year (2009-2010): Cladocera > Copepoda > Rotifera > Ostracoda

II nd Year (2010-2011): Rotifera > Cladocera > Copepoda > Ostracoda

Species Dominance

Rotifera : *Branchionus calyciflourus > Branchionus caudatus > Filinia terminalis > Branchionus forficula > Branchionus bidentata > Trichotria teteractis > Polyarthra major > Branchionus angularis > Keratella trophica > Lecane luna > Asplanchna periodontal > Lepadella sp. > Philodina sp. > Trichocerca sp.*

Cladocera: *Moina macrocopa > Daphnia longirimis > Moina micrura > Diaphanosoma oreintalis > Diaphanosoma sursi > Macrothrix rosea > Leydigio acanthocercoids > Ceriodaphnia cornuta > Ceriodaphnia reticulata > Chydorous sphariсus > Plexares similis*

Copepoda: *Heliodiaptomus viduus > Trpocyclops prasinus > Paracyclops fermbrialis > Mesocyclops leukarti > Eodiaptomus japonicus > Mesocyclops hyalian*

Ostracoda : *Hemicypris fossulata > Cyclocypris alba > Cyclocypris globosa > Cypric median > Physocypris ferfuracea > Eucypris biaponsa > Cyprinottus nuduus > Cyclocypris kinkadia > Candona sp.*

Seasonal Average values of Physico-Chemical parameter of Kagzipura Fresh water Reservoir around Marathwada region during Feb 2009 to Jan 2010.

Season Parameter	Summer (Feb.2009-May2009)	Monsoon (Jun.2009-Sept.2009)	Winter (Oct.2009-Jan.2010)
Air Temp. (°C)	26.76 (Jan26.1 May 31.8)	27.9 (Aug. 26.1, Sep. 28.3)	22.72 (Nov. 19.3, Jan.25.2)
Water Temp.(°C)	25.76 (Mar. 17.6, May. 25.5)	21.29 (Aug. 24.5, Jun. 27.8)	20.56 (Dec. 21.2, Oct. 25.1)
Transparency (cm)	16.11 (Feb.15.5, May. 16.9)	13.43 (Aug. 11.3, Jun. 17.3)	15.25 (Oct. 14.2, Jan. 15.9)
pH	7.37 (Mar. 7.1, Apr. 8.0)	6.34 (July. 5.23, Sept. 7.22)	7.05 (Dec. 6.0, Nov. 7.55)
DO mg/L	4.46 (Feb. 6.28, May. 7.85)	6.21 (July. 2.94, Jun. 4.26)	7.72 (Oct. 4.55, Jan. 6.41)
Free CO2 mg/L	55.0 (May. 39.6, Feb. 70.4)	19.8 (Aug.11.0, Sept. 30.8)	49.5 (Oct. 37.4, Jan. 66.0)
To. Alkalinity mg/L	227.3 (Feb. 212, May. 251)	119 (Jun. 110, Sept. 131)	174.8 (Oct. 147, Jan. 204)
Calcium mg/L	50.71 (Mar. 48.5, Apr. 53.9)	36.59 (July. 31.2, Aug. 45.6)	39.52 (Nov. 35.0, Jan. 44.0)
To. Hardness mg/L	169.7 (Feb. 161, May. 179)	144.2 (Aug.136, Jun. 153)	144.8 (Jan. 130, Nov. 156)
Chloride mg/L	161.9 (Feb. 146, May. 171)	134.4 (Sept. 120, Jun. 155)	132.6 (Oct.115, Jan. 148)
Po4 mg/L	2.25 (Feb. 2.18, Apr. 2.34)	3.43 (Jun. 3.18, Aug. 3.78)	2.14 (Jan. 1.98, Nov. 2.31)
So4 mg/L	30.44 (May. 26.3, Feb. 33.7)	21.39 (Sept. 17.2, Jun. 24.6)	11.31 (Jan. 7.4, Oct. 14.8)

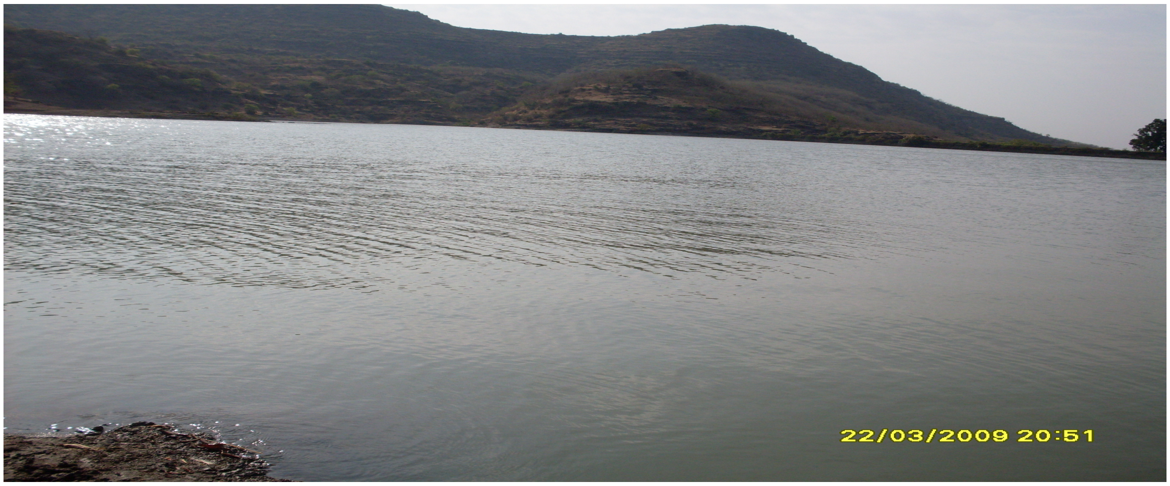
Note: Values in parentheses indicate min and max for the season

Seasonal Average values of Physico-Chemical parameter of Kagzipura Fresh water Reservoir during Feb 2010 to Jan 2011.

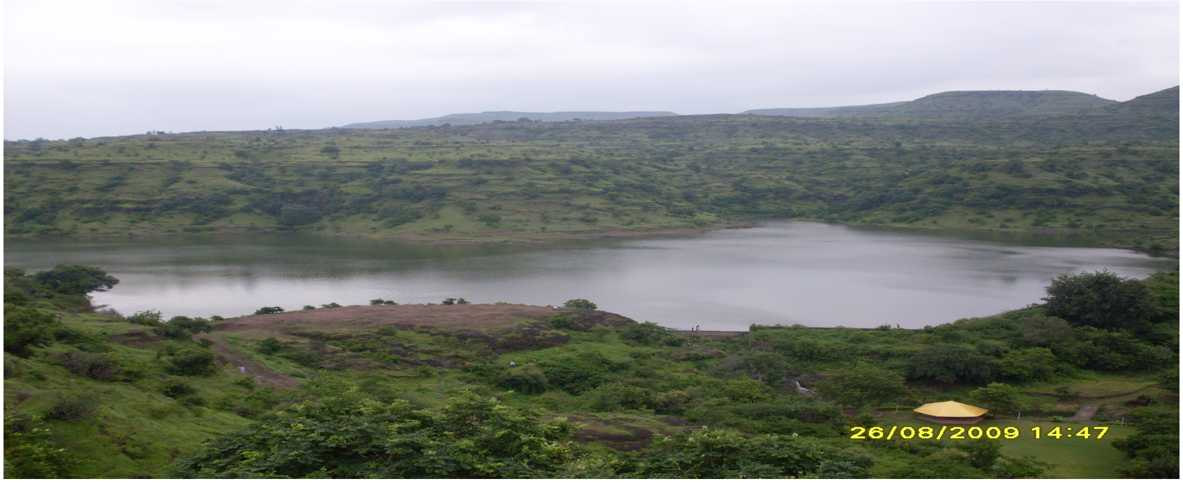
Season / Parameter	Summer (Feb.2010-May2010)	Monsoon (Jun.2010-Sept.2010)	Winter (Oct.2010-Jan.2011)
Air Temp. (°C)	29.58 (Jan26.1 May 30.8)	27.75 (Aug. 25.1, Sep. 28.3)	22.59 (Nov. 19.3, Jan.23.2)
Water Temp.(°C)	26.51 (May. 25, Mar. 28.1)	21.72 (July. 19.7, Sept.24.8)	20.62 (Dec.17.2, Oct. 23.6)
Transparency (cm)	15.18 (Apr. 13.6, Feb. 16.9)	14.8 (Jun. 14.1, Sept. 15.8)	15.82 (Nov. 15.5,Jan. 16.3)
pH	6.67 (May. 6.3, Feb. 7.1)	6.93 (Jun. 6.2, Sept. 7.7)	7.8 (Jan.7.57, Nov. 8.13)
DO mg/L	3.16 (Feb. 3.31, May. 5.35)	5.64 (Jun.5.56, Sept.6.87)	6.92 (Oct. 7.44, Dec.8.21)
Free CO2 mg/L	79.2 (Apr. 72.6, May.85.8)	50.6 (Sept.33.0, Jun. 70.4)	23.6 (Dec.11.0,Jan. 39.6)
To. Alkalinity mg/L	229.5 (Feb. 254, Apr. 280)	266.1 (Aug. 215, Jun. 244)	233.1 (Oct. 219, Jan. 250)
Calcium mg/L	51.27 (Feb.47.0, May. 56.6)	36.69 (Sept.31.2, Aug. 44.0)	40.57 (Oct.35.3, Jan. 44.9)
To. Hardness mg/L	158.2 (Feb. 146, May. 168)	130.4 (Jun. 117, Sept. 142)	140.0 (Jan. 137,Oct. 145)
Chloride mg/L	166.8 (Feb. 160, May. 171)	128.1 (July. 115, Jun. 154)	136.4 (Oct. 125, Jan. 144)
Po4 mg/L	2.31 (Feb. 2.2, Apr. 2.46)	3.49 (Jun., 3.24, Aug. 3.84)	2.13 (Jan. 1.96, Nov. 2.28)
So4 mg/L	33.94 (May. 31.2, Feb. 37.0)	25.39 (Aug. 23.8, Jun. 27.5)	16.45 (Jan. 13.1, Oct. 19.7)

Note: Values in parentheses indicate min and max for the season

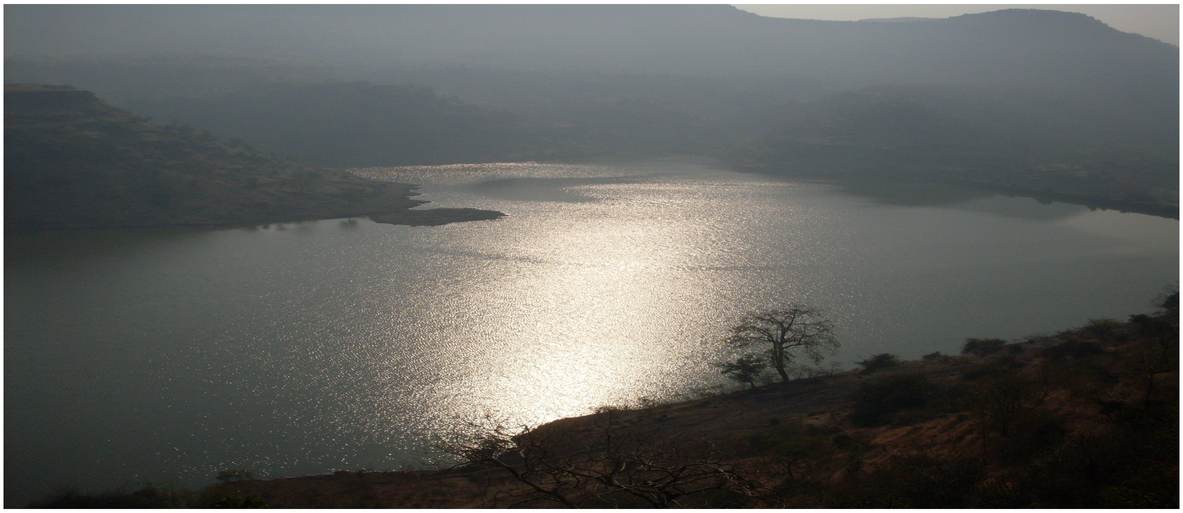
MOMBATTA RESERVOIR:


22/03/2009 20:51

Mombatta Reservoir (Early Summer)


26/08/2009 14:47

Mombatta Reservoir (Monsoon)



Mombatta Reservoir (Winter)

Topography of Daulatabad (Mombatta) Reservoir

Mombatta lake is located (between latitude 19^0 57’ 42” N and longitude 75^0 13’ 24” E) 14 km away from Aurangabad at Daulatabad valley in Khultabad Taluka of Aurangabad District. The Lake has a maximum depth of 6.00 meter spread across approximately 3.48 Sq. Km. The Lake is situated at foot hills in Daulatabad valley containing grassland mixed with tree vegetation and used for aquaculture.

Meiofauna from Daulatabad fresh water reservoir (Mombatta) during Feb.2009 to Jan. 2011

Rotifera	Cladocera	Copepoda	Ostracoda
Branchionus calyciflourus	*Moina macrocopa*	*Ergasilus versicolor*	*Hemicypris fossulata*
Branchionus caudatus	*Diaphanosoma sursi*	*Trpocyclops prasinus*	*Cypriochonca alba*
Branchionus forficula	*Daphnia longirimis*	*Paracyclops fermbrialis*	*Cypricercus reticulates*
Branchionus quqdredenta	*Macrothrix rosea*	*Mesocyclops leukarti*	*Cyclocypris kinkaidia*
Branchionus bidentata	*Ceriodaphnia laticaudata*	*Eodiaptomus japonicus*	*Cyclocypris fossulata*
Keratella trophica	*Chydorus sphaericus*		
Trichotria teteractis	*Scapholebris kingi*		
Polyarthra major			
Filinia terminalis			
Lecane luna			
Philodina			

Seasonal average value of Population density of Meiofauna (org/lit) in Mombatta Fresh water reservoir during Feb 2009 to Jan 2010.

Seasons Zooplankton	Summer (Feb.2009-May2009)	Monsoon (Jun.2009-Sept.2009)	Winter (Oct.2009-Jan.2010)
Rotifera	**41.5** Min. Mar. (24) Max. May (80)	**32.5** Min. Sept. (28) Max. Jun. (40)	**29** Min. Oct. (20) Max. Jan. (36)
Cladocera	**36.5** Min. Mar. (20) Max. May (62)	**86.5** Min. Sept. (64) Max. July (108)	**37.25** Min. Jan. (33) Max. Oct. (40)
Copepoda*	**108** Min. May (60) Max. Mar. (160)	**74** Min. Sept. (44) Max. July (104)	**41.75** Min. Nov. (32) Max. Jan. (56)
Ostracoda	**14.5** Min. May (0) Max. Mar. (20)	**10.5** Min. Sept. (08) Max. Jun. (12)	**10.5** Min. Oct. (06) Max. Jan. (16)

Note: * Shows the Dominant group.

Seasonal average value of Population density of Meiofauna (org/lit) in Mombatta Fresh water reservoir during Feb 2010 to Jan 2011.

Seasons Zooplankton	Summer (Feb.2010-May2010)	Monsoon (Jun.2010-Sept.2010)	Winter (Oct.2010-Jan.2011)
Rotifera*	**35.5** Min. Mar. (48) Max. Feb. (94)	**19.5** Min Sept. (16) Max. Jun. (188)	**18.5** Min. Nov. (12) Max. Oct. (26)
Cladocera	**22.5** Min. Mar. (26) Max. Feb. (64)	**30** Min. Aug. (30) Max. July (60)	**7** Min. Dec.(4) Max. Oct. (10)
Copepoda	**23** Min. Mar. (32) Max. Feb. (60)	**23.5** Min. Sept. (26) Max. Aug. (38)	**22.5** Min. Dec. (12) Max. Oct. (38)
Ostracoda	**8** Min. Mar. (14) Max. Feb. (18)	**14** Min. Jul. (10) Max. Sept. (30)	**23.5** Min. Nov. (20) Max. Jan. (30)

Note: * Shows the Dominant group.

Group Dominance

I st Year: Copepoda > Cladocera > Rotifera > Ostracoda
II nd Year: Rotifera > Copepoda > Cladocera > Ostracoda

Species Dominance

Rotifera : *Branchionus calyciflourus* > *Branchionus caudatus* > *Filinia terminalis* > *Branchionus bidentata* > *Trichotria teteractis* > *Polyarthra major* > *Lecane luna* > *Keratella trophica* > *Branchionus forficula* > *Branchionus quqdredenta* > *Philodina sp.*
Cladocera: *Moina macrocopa* > *Daphnia longirimis* > *Diaphanosoma sursi* > *Macrothrix rosea* > *Ceriodaphnia laticaudata* > *Chydorus sphaericus* > *Scapholebris kingi*
Copepoda: *Paracyclops fermbrialis* > *Mesocyclops leukarti* > *Ergasilus versicolor* > *Trpocyclops prasinus* > *Eodiaptomus japonicus*
Ostracoda : *Hemicypris fossulata* > *Cypriochonca alba* > *Cypricercus reticulates* > *Cyclocypris kinkaidia* > *Cyclocypris fossulata.*

Seasonal Average values of Physico-Chemical parameter of Mombatta Fresh water Reservoir during Feb 2009 to Jan 2010.

Season Parameter	Summer (Feb.2009-May2009)	Monsoon (Jun.2009-Sept.2009)	Winter (Oct.2009-Jan.2010)
Air Temp. (°C)	26.76 (Jan26.1 May 31.8)	27.9 (Aug. 26.1, Sep. 28.3)	22.72 (Nov. 19.3, Jan.25.2)
Water Temp.(°C)	25.74 (Mar. 17.4,May 25.5)	21.17 (Sept.24.8, Jun. 27.4)	20.66 (Dec. 14.6, Oct. 25.5)
Transparency(cm)	16.08 ((Feb.15.5, Apr. 15.9)	13.36 (Sept. 10.5, Jun. 17.1)	15.00 (Oct. 13.8, Jan. 16.1)
pH	7.84 (Mar. 7.5, May. 7.8)	7.26 (Aug. 6.7, Jun. 7.8)	7.89 (Dec. 7.4, Nov. 8.27)
DO mg/L	4.37 (Feb.3.2, May.5.5)	6.13 (Jun. 5.5, Sept. 6.7)	7.63 (Oct. 6.7, Aug.8.1)
Free CO2 mg/L	72.05 (May.61.6, Feb. 81.4)	41.3 (Sep.31.3, Jul.55.6)	19.9 (Nov. 16.5, Jan. 24.2)
To. Alkalinity mg/L	267 (Feb. 290, May.325)	209 (Jun. 187, Sept. 220)	329 (Oct.239, Jan.280)
Calcium mg/L	57.64 (Mar.51.5, May 63.7)	43.13 (Sept. 25.7, Aug. 61.0)	36.21 (Oct.30.1, Jan. 42.1)
To. Hardness mg/L	185.6 (Feb. 180.6 May 194)	186.9 (Sept. 180, Aug. 196)	172.6 (Oct. 167, Jan. 178)
Chloride mg/L	66.74 (Feb.61, May 70)	37.63 (Jun. 34.9, Aug.41)	51.83 (Oct. 46.6, Jan. 59.6)
Po4 mg/L	2.39 (Apr. 2.16, May. 3)	3.44 (Aug. 3.28, July.3.64)	2.13 (Nov. 2.09, Dec. 2.24)
So4 mg/L	39.49 (Feb. 35.3, May. 43.6)	39.91 (Sept. 31.2, Jul. 46.9)	13.16 (Jan. 6.5, Oct. 20.5)

Note: Values in parentheses indicate min and max for the season

Seasonal Average values of Physico-Chemical parameter of Mombatta Fresh water Reservoir during Feb. 2010 to Jan. 2011.

Season / Parameter	Summer (Feb.2010-May2010)	Monsoon (Jun.2010-Sept.2010)	Winter (Oct.2010-Jan.2011)
Air Temp. (°C)	29.58 (Feb. 27.1, May. 32.7)	27.75 (Aug. 26.3, Sep. 28.9)	22.59 (Nov. 19.6, Jan. 26.0)
Water Temp.(°C)	25.67 (Mar.24.3, May.27.7)	21.70 (Sept. 17.9, Jun. 25.7)	20.66 (Dec. 14.6, Oct.25.7)
Transparency (cm)	15.3 (Feb.14.6, May. 16.9)	16.5 (Sept. 15.1, July. 17.6)	13.6 (Nov. 12.1, Jan. 15.1)
pH	7.4 (Mar. 7.05, May. 8.03)	7.3 (Aug.7.1, Sept. 7.7)	8.0 (Jan. 7.78, Nov. 8.35)
DO mg/L	5.74 (Apr. 5.02, Feb. 6.68)	6.59 (Jun.5.78, Sept.7.28)	7.78 (Jan. 7.19, Oct. 7.63)
Free CO2 mg/L	73.7 (May. 55, Mar. 90.2)	38.9 (Sept. 29.1, Jun. 50.6)	20.3 (Dec. 19.8, Jan. 31.9)
To. Alkalinity mg/L	255 (Feb. 313, May. 348)	196 (Jul. 195, Sept. 239)	303 (Oct. 253, Jan. 291)
Calcium mg/L	56.93 (Feb. 49.1, May. 64.2)	44.93 (Sept. 26.5, Aug. 62.5)	37.14 (Oct. 31.3, Jan. 43.2)
To. Hardness mg/L	184.2 (Feb. 181, Apr. 187)	188.4 Sept. 181, Aug. 197)	174.8 (Oct. 169, Jan. 180.5)
Chloride mg/L	67.13 (Feb. 60, May 72)	33.74 (Sept. 29.8 , Jun. 39)	49.02 (Oct. 37.8, Jan. 57))
Po4 mg/L	2.74 (Feb. 2.12, May. 3.4)	3.65 (Jun. 3.54, Aug. 3.78)	2.28 (Jan. 1.9, Oct. 2.98)
So4 mg/L	38.26 (Feb. 32.9, May. 42.7)	39.08 (Sept. 29.6, Jul. 48.5)	16.45 (Jan. 9.05, Oct. 23.8)

Note: Values in parentthes indicate min and max for the season

NATH SAGAR RESERVOIR:

13/12/2009 13:33

Nath Sagar Reservoir (Late Monsson & Winter)

Nath Sagar reservoir (Summer)

Topography of Nath Sagar Reservoir

Jayakwadi dam, also known as **Nath Sagar** is located near Paithan (19°29′6″N 75°22′12″E). It is about 50 km from Aurangabad, built on river Godavari. Its area is 1300 km². Jayakwadi is one of the largest earthen dams in Asia. Its catchment area is 21,750 km². Total submergence area due to the reservoir is approx 35,000 ha. Its height is approx 41.30 m and length is approx. 10 km. Nath Sagar is the name of the reservoir formed due to Jayakwadi Dam. Its total storage capacity is approx 2.909 km³ & effective live storage capacity is 2.17 km³. The length of left bank canal is 208 km & the length of right bank canal is 132 km. It irrigates culturable area of 237,452 ha in the districts of Aurangabad, Jalna, Beed and Parbhani.

Meiofauna from Nath Sagar fresh water reservoir during Feb. 2009 to Jan. 2011.

Rotifera	Cladocera	Copepoda	Ostracoda
Branchionus calyciflourus	*Moina macrocopa*	*Heliodiaptomus viduus*	*Hemicypris fossulata*
Branchionus caudatus	*Moina micrura*	*Trpocyclops prasinus*	*Cyclocypris globosa*
Branchionus forficula	*Diaphanosoma oreintalis*	*Paracyclops fermbrialis*	*Cyclocypris kinkadia*
Branchionus angularis	*Diaphanosoma sursi*	*Mesocyclops leukarti*	
Branchionus bidentata	*Daphnia longirimis*	*Eodiaptomus japonicus*	
Keratella trophica	*Macrothrix rosea*		
Trichotria teteractis	*Leydigio acanthocercoids*		
Polyarthra major	*Ceriodaphnia cornuta*		
Filinia terminalis			
Asplanchna periodontal			
Lepadella sp.			
Lecane luna			
Philodina sp.			
Trichocerca sp.			

Seasonal average value of Population density of Meiofauna (org/lit) in Nath Sagar (Paithan) Fresh water reservoir during Feb 2009 to Jan 2010.

Seasons / Zooplankton	Summer (Feb.2009-May2009)	Monsoon (Jun.2009-Sept.2009)	Winter (Oct.2009-Jan.2010)
Rotifera	**202** Min. Apr. (187) Max. May. (221)	**234.5** Min Sept. (212) Max. July (256)	**98.5** Min. May (88) Max. Mar. (110)
Cladocera	**104.25** Min. Apr. (87) Max. May (121)	**66.5** Min. Sept. (54) Max. Jun. (77)	**46** Min. (39) Max. (58)
Copepoda*	**193.75** Min. May (179) Max. Mar. (212)	**216.5** Min. Sept. (193) Max. Aug. (238)	**157.75** Min. Jan. (137) Max. Oct. (188)
Ostracoda	**155.75** Min. May (120) Max. Mar. (196)	**69.75** Min. Sept. (49) Max. July (89)	**36.75** Min. Nov. (28) Max. Dec. (44)

Note: * Shows the Dominant group.

Seasonal average value of Population density of Meiofauna (org/lit) in Nath Sagar (Paithan) Fresh water reservoir around Marathwada region during Feb 2009 to Jan 2010.

Seasons / Zooplankton	Summer (Feb.20010-May2010)	Monsoon (Jun.2010-Sept.2010)	Winter (Oct.2010-Jan.2011)
Rotifera	**193.75** Min. May (179) Max. Mar. (212)	**69.75** Min. Sept. (49) Max. July (89)	**286.25** Min. Oct. (348) Max. Nov. (412)
Cladocera	**155.75** Min. May (120) Max. Mar. (196)	**216.5** Min. Sept. (193) Max. Aug. (238)	**15** Min. Jan. (11) Max. Oct. (24)
Copepoda*	**202** Min. Apr. (187) Max. May. (221)	**234.5** Min Sept. (212) Max. July (256)	**365.25** Min. Feb (312) Max. Apr. (401)
Ostracoda	**104.25** Min. Apr. (87) Max. May (121)	**66.5** Min. Sept. (54) Max. Jun. (77)	**33.75** Min. Dec. (28) Max. Jan. (42)

Note: * Shows the Dominant group.

Group Dominance

I st Year: Copepoda > Rotifera > Ostracoda > Cladocera
II nd Year: Copepoda > Rotifera > Cladocera > Ostracoda

Species Dominance

Rotifera : *Branchionus calyciflourus > Branchionus caudatus > Branchionus forficula > Branchionus angularis > Lecane luna > Branchionus bidentata > Keratella trophica > Trichotria teteractis > Polyarthra major > Filinia terminalis > Lepadella sp. > Trichocerca sp > Asplanchna periodontal > Philodina sp.*

Cladocera: *Moina macrocopa > Moina micrura > Diaphanosoma oreintalis > Diaphanosoma sursi > Daphnia longirimis > Macrothrix rosea > Leydigio acanthocercoids > Ceriodaphnia cornuta*

Copepoda: *Trpocyclops prasinus > Paracyclops fermbrialis > Mesocyclops leukarti > Eodiaptomus japonicus > Heliodiaptomus viduus*

Ostracoda : *Hemicypris fossulata > Cyclocypris globosa > Cyclocypris kinkadia*

Seasonal Average values of Physico-Chemical parameter of Nath Sagar (Paithan) Fresh water Reservoir during Feb 2009 to Jan 2010.

Season / Parameter	Summer (Feb.2009-May2009)	Monsoon (Jun.2009-Sept.2009)	Winter (Oct.2009-Jan.2010)
Air Temp. (°C)	26.76 (Feb. 23.3, May. 25.4)	27.9 (May. 23.4, Feb. 26.7)	22.72 (Dec. 20.9, Oct. 23.6)
Water Temp.(°C)	25.19 (Feb. 24.3, May. 27.4)	24.83 (May. 21.4, Feb. 25.7)	20.3 (Dec. 19.9, Oct. 21.6)
Transparency (cm)	14.67 (Mar. 12.3, May. 14.5)	12.55 (Aug. 10.5, Jun. 12.5)	14.64 (Oct. 13.4, Nov. 14.8)
pH	7.71 (Apr. 6.7, Mar. 6.9)	7.08 (Jun. 6.3, Sept. 7.4)	7.99 (Jan. 6.9, Dec. 7.11)
DO mg/L	5.67 (Feb. 6.0, May. 7.0)	7.07 (Jun. 7.28, Sept. 8.26)	8.01 (Jan. 6.86, Oct. 8.68)
Free CO2 mg/L	31.9 (Feb. 26.4, May. 48.4)	67.1 (Jun. 57.2, Sept. 88.0)	79.2 (Jan. 48.4, Oct.101.2)
To. Alkalinity mg/L	251 (Mar. 244, May. 268)	228.5 (Aug. 216, Sept. 230)	289 (Dec 224, Jan. 250)
Calcium mg/L	19.43 (Apr. 18.8, Feb. 20.0)	20.43 (Jun. 17.9, Aug. 22.4)	24.44 (Jan. 20.8, Dec. 25.6)
To. Hardness mg/L	142.5 (Feb 132, Mar. 146)	141.2 (Aug. 122, Sept. 152)	148.2 (Jan. 130, Oct. 154)
Chloride mg/L	108.6 (Feb. 105, May. 116)	80.03 (Sept. 69.5, Jun. 107)	89.58 (Oct. 71, Jan. 107.9)
PO4 mg/L	2.18 (Mar. 2.3, May. 2.19)	3.71 (Jun. 3.04, Sept. 3.64)	1.89 (Oct. 1.18, Jan. 2.1)
SO4 mg/L	56.57 (Feb. 51.8, May. 59.2)	58.63 (Sept.55.1, Jun. 61.7)	40.11 (Jan. 32.9, Oct. 47.7)

Note: Values in parentthes indicate min and max for the season

Seasonal Average values of Physico-Chemical parameter of Nath Sagar (Paithan) Fresh water Reservoir around Marathwada region

During Feb. 2010 to Jan. 2011.

Season / Parameter	Summer (Feb.2009-May2010)	Monsoon (Jun.2009-Sept.2010)	Winter (Oct.2009-Jan.2010)
Air Temp. (°C)	27.58 (Feb. 24.2, May. 26.6)	25.75 (Sept. 21.3, July. 26.1)	22.59 (Dec. 20.3, Oct. 24.2)
Water Temp.(°C)	25.47 (Feb. 23.1, May. 27.7)	23.16 (Sept. 23.1, July. 25.7)	20.53 (Dec. 19.5, Oct. 23.1)
Transparency (cm)	13.55 (Feb. 13.8, Apr. 15.4)	11.62 (Sept. 10.5, Jun. 13.8)	14.18 (Jan. 13.4, Nov. 15.1)
pH	6.18 (Mar. 6.7, May. 7.6)	6.19 (July. 7.5, Sept. 8.11)	7.15 (Dec. 7.7, Oct. 8.3)
DO mg/L	6.61 (Feb. 5.18, May. 6.16)	7.77 (Jun. 6.72, Sept. 7.42)	7.80 (Jan. 7.7, Nov. 8.12)
Free CO2 mg/L	38.5 (Feb. 17.6, May. 44)	71.5 (Jun. 52.8, Sept. 83.6)	81.4 (Jan. 52.8, Oct. 96.8)
To. Alkalinity mg/L	223.7 (Mar. 236, May.260)	232.5 (July. 212, Sept. 248)	257.1 (Oct. 264, Jan. 312)
Calcium mg/L	19.49 (May. 17.6, Feb. 21,6)	20.07 (Jun. 19.2, Aug. 21.6)	23.45 (Oct. 23.4, Dec. 26.4)
To. Hardness mg/L	139.5 (Feb. 139, May. 146)	135.5 (Jun. 129, Sept. 158)	143 (Jan. 138, Oct. 159)
Chloride mg/L	110.4 (Mar. 105, May. 113)	80.94 (Sept. 69.5, Jun. 107)	89.35 (Oct. 69.9, Jan. 109.3)
PO4 mg/L	2.21 (May. 2.0, Apr. 2.34)	3.25 (Sept. 3.68, Jun. 3.98)	1.57 (Jan.1.54, Oct. 2.3)
SO4 mg/L	55.13 (Feb. 53.4, May. 60.0)	58.42 (Sept. 54.3, Jun. 62.5)	39.70 (Jan. 33.7, Oct. 46.9)

Note: Values in parentheses indicate min and max for the season

AMBADI RESERVOIR:

Ambadi Reservoir (Summer)

11/10/2009 11:10

Ambadi Reservoir (Winter)

Ambadi Reservoir (Monsoon)

Topography of Ambadi Reservoir

Village :- Andhanair
Taluka :- Kannad
District :- Aurangabad
River :- Ambadi river
Date of project :- 1971
Length (meter) :- 1850 meter
Height (meter) :- 19.28 meter
Catchment Area :- 141 Sq. km.
Area of Irrigation :- 3709 hector
Latitude :- 75^0 03’ N
Longitude :- 20^0 16’ E

Meiofauna from Ambadi fresh water reservoir during Feb.2009 to Jan. 2011.

Rotifera	Cladocera	Copepoda	Ostracoda
Branchionus calyciflourus	*Moina macrocopa*	*Heliodiaptomus viduus*	*Hemicypris fossulata*
Branchionus caudatus	*Moina micrura*	*Trpocyclops prasinus*	*Eucypris biaponsa*
Branchionus angularis	*Diaphanosoma oreintalis*	*Paracyclops fermbrialis*	*Cyprinottus nuduus*
Keratella trophica	*Diaphanosoma sursi*	*Mesocyclops leukarti*	*Candona sp.*
Trichotria teteractis	*Daphnia longirimis*	*Mesocyclops hyalian*	
Polyarthra major	*Leydigio acanthocercoids*		
Filinia terminalis	*Ceriodaphnia cornuta*		
Asplanchna periodontal	*Plexares similis*		
Lepadella sp.	*Chydorous spharicus*		
Lecane luna			
Philodina			
Trichocerca			

Seasonal average value of Population density of Meiofauna (org/lit) in Ambadi Fresh water reservoir during Feb 2009 to Jan 2010.

Seasons / Zooplankton	Summer (Feb.2009-May2009)	Monsoon (Jun.2009-Sept.2009)	Winter (Oct.2009-Jan.2010)
Rotifera	**120.5** Min. Feb. (120) Max. Mar. (102)	**127** Min. Aug. (108) Max. Jun. (158)	**90** Min. Jan. (79) Max. Oct. (104)
Cladocera	**24.5** Min. Feb. (12) Max. May (34)	**40.5** Min. Sept. (24) Max. July (52)	**33.5** Min. Oct. (22) Max. Jan. (41)
Copepoda*	**118** Min. Feb. (104) Max. May (138)	**153** Min. Jun. (144) Max. Aug. (162)	**130.75** Min. Jan. (111) Max. Dec. (145)
Ostracoda	**16** Min. May (12) Max. Apr. (20)	**11.5** Min. Aug. (4) Max. July (22)	**18.5** Min. Oct. (12) Max. Dec. (20)

Note: * Shows the Dominant group.

Seasonal average value of Population density of Meiofauna (org/lit) in Ambadi Fresh water reservoir during Feb 2010 to Jan 2011.

Seasons / Zooplankton	Summer (Feb.2010-May2010)	Monsoon (Jun.2010-Sept.2010)	Winter (Oct.2010-Jan.2011)
Rotifera	**141** Min. Apr. (132) Max. May (148)	**123** Min. Sept. (102) Max. Jun (152)	**141** Min. Dec. (132) Max. Jan. (148)
Cladocera	**13** Min. Feb. (8) Max. May (18)	**. 24** Min. Jun. (20) Max. Aug. (32)	**31** Min. Nov. (26) Max. Oct. (38)
Copepoda*	**206.5** Min. May (198) Max. Feb (220).	**211.5** Min. Sept. (188) Max. July (232)	**158.25** Min. Dec.(145) Max. Nov. (171)
Ostracoda	**39.5** Min. Apr. (32) Max. May (48)	**28.5** Min. Aug. (24) Max. Jun. (32)	**31.25** Min. Oct. (22) Max. Jan. (41)

Note: * Shows the Dominant group.

Group Dominance
I st Year: Copepoda > Rotifera > Cladocera > Ostracoda.
II nd Year: Copepoda > Rotifera > Ostracoda > Cladocera.

Species Dominance
Rotifera : *Branchionus caudatus > Branchionus angularis > Keratella trophica > Trichotria teteractis > Polyarthra major > Branchionus calyciflourus > Filinia terminalis > Asplanchna periodontal > Lecane luna > Trichocerca sp. > Lepadella sp. > Philodina sp.*
Cladocera: *Moina micrura > Moina macrocopa > Diaphanosoma oreintalis > Diaphanosoma sursi > Daphnia longirimis > Ceriodaphnia cornuta > Leydigio acanthocercoids > Chydorous spharicus > Plexares similis*
Copepoda: *Paracyclops fermbrialis > Heliodiaptomus viduus > Trpocyclops prasinus > Mesocyclops leukarti > Mesocyclops hyalian*
Ostracoda : *Hemicypris fossulata > Eucypris biaponsa > Cyprinottus nuduus > Candona sp.*

Seasonal Average values of Physico-Chemical parameter of Ambadi Fresh water Reservoir during Feb 2009 to Jan 2010.

Season Parameter	Summer (Feb.2009-May2009)	Monsoon (Jun.2009-Sept.2009)	Winter (Oct.2009-Jan.2010)
Air Temp. (°C)	27.58 (Jan26.1 May 29.8)	24.75 (Aug. 23.1, Sep. 27.3)	21.59 (Nov. 19.3, Jan.23.2)
Water Temp.(°C)	24.41 (Mar. 18.6, May. 25.5)	23.32 (Aug. 22.5, Jun. 27.3)	20.42 (Dec. 19.2, Oct. 23.1)
Transparency (cm)	17.68 (Feb.15.5, May. 16.9)	17.28 (Aug. 13.3, Jun. 17.3)	19.62 (Oct. 15.2, Jan. 21.9)
pH	6.17 (Mar.4.1, Apr. 6.0)	6.93 (July. 3.23, Sept. 6.22)	7.85 (Dec. 5.0, Nov. 7.55)
DO mg/L	4.16 (Feb. 3.28, May. 6.85)	5.34 (July. 3.94, Jun. 4.26)	6.52 (Oct. 4.55, Jan. 6.71)
Free CO2 mg/L	69.2 (May. 49.6, Feb. 70.4)	48.6 (Aug.36.0, Sept. 43.8)	22.6 (Oct. 21.4, Jan. 26.0)
To. Alkalinity mg/L	224.5 (Feb. 212, May. 231)	261.1 (Jun. 230, Sept. 251)	231.1 (Oct. 217, Jan. 244)
Calcium mg/L	49.27 (Mar. 48.5, Apr. 53.9)	34.69 (July. 31.2, Aug. 45.6)	38.57 (Nov. 35.0, Jan. 44.0)
To. Hardness mg/L	159.2 (Feb. 149, May. 169)	131.4 (Aug.126, Jun. 143)	142.0 (Jan. 130, Nov. 146)
Chloride mg/L	168.8 (Feb. 146, May. 171)	127.1 (Sept. 120, Jun. 135)	135.4 (Oct.125, Jan. 138)
Po4 mg/L	3.31 (Feb. 2.18, Apr.3.14)	4.49 (Jun. 3.18, Aug. 4.18)	3.13 (Jan. 2.98, Nov. 3.31)
So4 mg/L	32.94 (May. 26.3, Feb. 33.7)	26.39 (Sept. 19.2, Jun. 24.6)	17.45 (Jan. 13.4, Oct. 16.8)

Note: Values in parentheses indicate min and max for the season

Seasonal Average values of Physico-Chemical parameter of Ambadi Fresh water Reservoir during Feb 2010 to Jan 2011.

Season Parameter	Summer (Feb.20010-May2010)	Monsoon (Jun.2010-Sept.2010)	Winter (Oct.2010-Jan.2011)
Air Temp. (°C)	29.58 (Jan26.1 May 30.8)	25.75 (Aug. 23.1, Sep. 26.3)	24.59 (Nov. 21.3, Jan.25.2)
Water Temp.(°C)	25.41 (May. 23, Mar. 28.1)	22.32 (July. 19.6, Sept.24.9)	21.42 (Dec.17.2, Oct. 23.6)
Transparency (cm)	18.68 (Apr. 15.6, Feb. 19.9)	18.18 (Jun. 15.1, Sept. 19.8)	19.32 (Nov. 17.5,Jan. 20.3)
pH	6.27 (May. 4.3, Feb. 7.1)	6.73 (Jun. 5.2, Sept. 7.7)	7.35 (Jan.6.57, Nov. 8.13)
DO mg/L	4.76 (Feb. 3.31, May. 4.65)	5.94 (Jun.4.56, Sept.6.87)	6.82 (Oct. 5.44, Dec.7.21)
Free CO2 mg/L	71.2 (Apr. 68.6, May.75.8)	49.6 (Sept.33.0, Jun. 50.4)	24.6 (Dec.21.0,Jan. 29.6)
To. Alkalinity mg/L	228.5 (Feb. 224, Apr. 240)	265.1 (Aug. 235, Jun. 264)	236.1 (Oct. 219, Jan. 240)
Calcium mg/L	47.27 (Feb.42.0, May. 49.6)	32.69 (Sept.31.2, Aug. 34.9)	36.57 (Oct.35.3, Jan. 40.9)
To. Hardness mg/L	152.2 (Feb. 146, May. 158)	132.4 (Jun. 127, Sept. 135)	143.0 (Jan. 137,Oct. 145)
Chloride mg/L	167.8 (Feb. 160, May. 171)	125.1 (July. 122, Jun. 134)	133.4 (Oct. 125.4, Jan. 134)
Po4 mg/L	3.41 (Feb. 2.2, Apr. 2.96)	4.42 (Jun., 3.24, Aug. 4.84)	3.43 (Jan. 2.96, Nov.3.28)
So4 mg/L	30.94 (May. 28.2, Feb. 34.0)	24.39 (Aug. 21.8, Jun. 25.5)	18.45 (Jan. 16.1, Oct. 19.7)

Note: Values in parentthes indicate min and max for the season

SHIVNA TAKALI RESERVOIR:

Shivna Takali (Winter)

02/02/2010 22:52

Shivna Takali (Early Summer)

गोदावरी मराठवाडा पाटबंधारे विकास महामंडळ, औरंगाबाद
(महाराष्ट्र शासन अंगीकृत)
शिवना टाकळी मध्यम प्रकल्प
उजवे मुख्य विमोचक सा.क्र.४१८० मी.
१) सेवा द्वार संख्या : २ नग
आकार : १.२० x १.२० मी.

26/08/2009 12:11

Shivna Takali (Monsoon)

Topography of Shivna Takali Reservoir

Village :- Takali
Taluka :- Kannad
District :- Aurangabad
Date of project :-
Length (meter) :- 4180 meter
Height (meter) :- meter
Catchment Area :- Sq.km.
Area of Irrigation :- hector
Latitude :- 74^0 50' N
Longitude :- 20^0 7' E

Meiofauna from Shivna Takali fresh water reservoir during Feb.2009 to Jan. 2011.

Rotifera	Cladocera	Copepoda	Ostracoda
Branchionus caudatus *Branchionus forficula* *Branchionus angularis* *Branchionus bidentata* *Keratella trophica* *Trichotria teteractis* *Polyarthra major* *Lepadella sp.* *Lecane luna* *Philodina* *Trichocerca*	*Moina macrocopa* *Moina micrura* *Diaphanosoma sursi* *Daphnia longirimis* *Macrothrix rosea* *Ceriodaphnia cornuta* *Chydorous spharicus*	*Heliodiaptomus viduus* *Trpocyclops prasinus* *Paracyclops fermbrialis* *Mesocyclops leukarti* *Eodiaptomus japonicus*	*Hemicypris fossulata* *Cypric median* *Physocypris ferfuracea* *Candona sp.*

Seasonal average value of Population density of Meiofauna (org/lit) in Shivna Takali Fresh water reservoir during Feb 2009 to Jan 2010.

Seasons Zooplankton	Summer (Feb.2009-May2009) Average	Monsoon (Jun.2009-Sept.2009) Average	Winter (Oct.2009-Jan.2010) Average
Rotifera*	**33.5** Min. Apr. (30) Max. Feb (34)	**41** Min Sept. (24) Max. July (54)	**34.75** Min. Oct. (26) Max. Jan. (41)
Cladocera	**41** Min. Feb. (28) Max. May (56)	**27.5** Min. Aug (18) Max. July (34)	**17** Min. Jan. (10) Max. Oct. (12)
Copepoda	**43.5** Min. Apr. (36) Max. Mar. (50)	**33** Min. Sept. (24) Max. Aug. (40)	**25.25** Min. Jan. (17) Max. Oct. (38)
Ostracoda	**9** Min. Apr. (2) Max. Feb (16)	**8** Min. Sept. (2) Max. July (12)	**13** Min. Oct. (8) Max. Dec. (19)

Note: * Shows the Dominant group.

Seasonal average value of Population density of Meiofauna (org/lit) in Shivna Takali Fresh water reservoir during Feb 2010 to Jan 2011.

Seasons Zooplankton	Summer (Feb.2010-May2010)	Monsoon (Jun.2010-Sept.2010)	Winter (Oct.2010-Jan.2011)
Rotifera*	**86** Min. Feb. (60) Max. May (102)	**82** Min. Jun. (72) Max. July (90)	**76** Min. Nov. (72) Max. Dec. (80)
Cladocera	**53** Min. Feb (38) Max. Apr. (80)	**40** Min July (36) Max. Jun. (46)	**50** Min. Nov. (44) Max. Oct. (58)
Copepoda	**22** Min. May (12) Max. Mar. (30)	**17** Min. Sept. (10) Max. Jun. (22).	**11.5** Min. Nov. (4) Max. Jan. (18)
Ostracoda	**55** Min. Feb. (40) Max. Apr.(80)	**63** Min. Jun. (48) Max. Aug. (72)	**53** Min. Dec. (48) Max. Nov. (62)

Note: * Shows the Dominant group.

Group Dominance
I st Year: Rotifera > Copepoda > Cladocera > Ostracoda.
II nd Year: Rotifera > Ostracoda > Cladocera > Ostracoda.

Species Dominance

Rotifera : *Branchionus caudatus > Branchionus forficula > Branchionus angularis > Keratella trophica > Branchionus bidentata > Trichotria teteractis > Polyarthra major > Lecane luna > Trichocerca sp. > Lepadella sp. > Philodina*

Cladocera: *Moina macrocopa > Moina micrura > Diaphanosoma sursi > Daphnia longirimis > Macrothrix rosea > Ceriodaphnia cornuta > Chydorous spharicus*

Copepoda: *Heliodiaptomus viduus Trpocyclops prasinus Paracyclops fermbrialis Mesocyclops leukarti Eodiaptomus japonicus*

Ostracoda : *Hemicypris fossulata > Cypric median > Physocypris ferfuracea > Candona sp.*

Seasonal Average values of Physico-Chemical parameter of Shivna Takali Fresh water Reservoir during Feb 2009 to Jan 2010.

Season **Parameter**	**Summer** **(Feb.2009-May2009)**	**Monsoon** **(Jun.2009-Sept.2009)**	**Winter** **(Oct.2009-Jan.2010)**
Air Temp. (°C)	27.58 (Jan25.1 May 28.8)	24.75 (Aug. 22.1, Sep. 27.3)	21.59 (Nov. 19.3, Jan.23.2)
Water Temp.(°C)	27.51 (Mar. 21.4,May 28.5)	24.72 (Sept.18.8, Jun. 25.4)	22.62 (Dec. 14.6, Oct. 23.5)
Transparency (cm)	16.18 (Feb.15.5, Apr. 15.9)	16.8 (Sept. 13.5, Jun. 17.1)	17.82 (Oct. 14.8, Jan. 16.7)
pH	5.67 (Mar. 5.5, May. 6.8)	5.93 (Aug. 5.7, Jun. 7.8)	6.8 (Dec. 6.4, Nov.7.27)
DO mg/L	4.16 (Feb.3.8, May.5.9)	5.34 (Jun. 4.5, Sept. 6.17)	6.52 (Oct. 5.7, Aug.7.1)
Free CO2 mg/L	69.2 (May.59.6, Feb. 71.4)	48.6 (Sep.33.3, Jul.49.6)	22.6 (Nov. 18.5, Jan. 24.9)
To. Alkalinity mg/L	224.5 (Feb. 220, May.285)	261.1 (Jun. 237, Sept. 270)	231.1 (Oct.219, Jan.240)
Calcium mg/L	49.27 (Mar.41.5, May 52.7)	34.69 (Sept. 29.7, Aug. 38.0)	38.57 (Oct.30.1, Jan. 42.1)
To. Hardness mg/L	159.2 (Feb. 144.6 May 164)	131.4 (Sept. 128, Aug.140.2)	142.0 (Oct. 137, Jan. 146)
Chloride mg/L	168.8 (Feb.163.4, May 170)	127.1 (Jun. 124.9, Aug.139)	135.4 (Oct. 129.6, Jan. 139.)
PO4 mg/L	3.31 (Apr. 2.16, May. 3)	4.49 (Aug. 3.28, July.3.84)	3.13 (Nov. 2.09, Dec. 2.84)
SO4 mg/L	32.94 (Feb. 29.3, May. 34.6)	26.39 (Sept. 21.2, Jul. 26.9)	17.45 (Jan. 16.5, Oct. 20.5)

Note: Values in parentthes indicate min and max for the season

Seasonal Average values of Physico-Chemical parameter of Shivna Takali Fresh water Reservoir during Feb. 2010 to Jan. 2011.

Season / Parameter	Summer (Feb.2010-May2010)	Monsoon (Jun.2010-Sept.2010)	Winter (Oct.2010-Jan.2011)
Air Temp. (°C)	28.58 (Jan25.1 May 27.18)	25.55 (Aug. 23.1, Sep. 26.3)	22.39 (Nov. 19.9, Jan.23.8)
Water Temp.(°C)	28.61 (Mar. 24.4,May 28.8)	25.72 (Sept.20.8, Jun. 25.8)	23.62 (Dec. 19.6, Oct. 24.5)
Transparency (cm)	17.18 (Feb.15.1, Apr. 17.9)	17.8 (Sept. 13.5, Jun. 17.1)	18.82 (Oct. 14.8, Jan. 17.7)
pH	6.67 (Mar. 5.2, May. 6.28)	6.93 (Aug. 5.7, Jun. 7.6)	7.8 (Dec. 6.4, Nov.7.07)
DO mg/L	3.16 (Feb.3.8, May.4.9)	4.44 (Jun. 3.5, Sept. 5.17)	5.62 (Oct. 4.7, Aug.6.1)
Free CO2 mg/L	68.2 (May.61.6, Feb. 70.4)	47.6 (Sep.43.3, Jul.48.8)	23.6 (Nov. 20.5, Jan. 24.9)
To. Alkalinity mg/L	234.5 (Feb. 230, May.245)	251.1 (Jun. 247, Sept. 250.8)	221.1 (Oct.219, Jan.230)
Calcium mg/L	47.27 (Mar.43.5, May 48.7)	33.69 (Sept. 25.7, Aug. 51.0)	37.57 (Oct.34.1, Jan. 41.1)
To. Hardness mg/L	149.2 (Feb. 143.6 May 147.)	121.4 (Sept. 120, Aug.126.4)	152.0 (Oct. 147, Jan. 158)
Chloride mg/L	178.8 (Feb.161, May 179)	137.1 (Jun. 134.9, Aug.141)	145.4 (Oct. 136, Jan. 149.6)
PO4 mg/L	3.61 (Apr. 2.16, May. 3)	4.89 (Aug. 2.28, July.4.64)	3.63 (Nov. 2.79, Dec. 3.84)
SO4 mg/L	31.94 (Feb. 35.3, May. 43.6)	25.39 (Sept. 22.2, Jul. 30.9)	16.45 (Jan. 12.5, Oct. 21.5)

Note: Values in parentheses indicate min and max for the season

DHEKU RESERVOIR:

Dheku Reservoir (Summer)

26/08/2009 11:10

Dheku Reservoir (Monsoon)

11/10/2009 15:15

Dheku Reservoir (Winter)

Topography of Dheku Reservoir

Village :- Bhatana
Taluka :- Vaijapur
District :- Aurangabad
River :- Dheku river
Date of project :- 1962
Length (meter) :- 780 meter
Height (meter) :- 13.71 meter
Catchment Area :- 259 Sq.km.
Area of Irrigation :- 38.30 hector
Latitude :- 74^0 50’ N
Longitude :- 20^0 7’ E

Meiofauna from Dheku fresh water reservoir during Feb.2009 to Jan. 2011.

Rotifera	Cladocera	Copepoda	Ostracoda
Branchionus calyciflourus	*Moina macrocopa*	*Heliodiaptomus viduus*	*Hemicypris fossulata*
Branchionus caudatus	*Moina micrura*	*Trpocyclops prasinus*	*Cyclocypris globosa*
Branchionus forficula	*Diaphanosoma oreintalis*	*Paracyclops fermbrialis*	*Cyclocypris kinkadia*
Branchionus angularis	*Daphnia longirimis*	*Mesocyclops leukarti*	*Cypric median*
Branchionus bidentata	*Leydigio acanthocercoids*	*Eodiaptomus japonicus*	*Physocypris ferfuracea*
Trichotria teteractis	*Ceriodaphnia cornuta*	*Mesocyclops hyalian*	*Eucypris biaponsa*
Polyarthra major			*Cyprinottus nuduus*
Filinia terminalis			
Asplanchna periodontal			
Lecane luna			
Trichocerca			

Seasonal average value of Population density of Meiofauna (org/lit) in Dheku Fresh water reservoir during Feb 2008 to Jan 2009.

Seasons Zooplankton	Summer (Feb.2009-May2009)	Monsoon (Jun.2009-Sept.2009)	Winter (Oct.2009-Jan.2010)
Rotifera*	**882.5** Min. May (800) Max. Feb. (920)	**495** Min Sept. (418) Max. June (602)	**365.25** Min. Feb (312) Max. Apr. (401)
Cladocera	**34.5** Min. May (18) Max. Feb (48)	**39** Min. Jun. (30) Max. Aug. (48)	**33.75** Min. Dec. (28) Max. Jan. (42)
Copepoda	**347** Min. May (408) Max. Feb. (480)	**319.5** Min. Sept. (342) Max. Jun. (398)	**286.25** Min. Oct. (348) Max. Nov. (412)
Ostracoda	**22** Min. Feb (16) Max. Apr. (40)	**18.5** Min. Sept. (18) Max. July (38)	**15** Min. Jan. (11) Max. Oct. (24)

Note: * Shows the Dominant group.

Seasonal average value of Population density of Meiofauna (org/lit) in Dheku Fresh water reservoir during Feb 2009 to Jan 2010.

Seasons Zooplankton	Summer (Feb.2010-May2010)	Monsoon (Jun.2010-Sept.2010)	Winter (Oct.2010-Jan.2011)
Rotifera	**53** Min. Feb (38) Max. Apr. (80)	**40** Min July (36) Max. Jun. (46)	**50** Min. Nov. (44) Max. Oct. (58)
Cladocera	**55** Min. Feb. (40) Max. Apr.(80)	**63** Min. Jun. (48) Max. Aug. (72)	**53** Min. Dec. (48) Max. Nov. (62)
Copepoda*	**86** Min. Feb. (60) Max. May (102)	**82** Min. Jun. (72) Max. July (90)	**76** Min. Nov. (72) Max. Dec. (80)
Ostracoda	**22** Min. May (12) Max. Mar. (30)	**17** Min. Sept. (10) Max. Jun. (22)	**11.5** Min. Nov. (4) Max. Jan. (18)

Note: * Shows the Dominant group.

Group Dominance
I st Year: Rotifera > Copepoda > Cladocera > Ostracoda
II nd Year: Copepoda > Cladocera > Rotifera > Ostracoda

Species Dominance
Rotifera : *Branchionus calyciflourus* > *Branchionus caudatus* > *Branchionus forficula* > *Branchionus angularis* > *Branchionus bidentata* > *Trichotria teteractis* > *Polyarthra major* > *Filinia terminalis* > *Lecane luna* > *Trichocerca* > *Asplanchna periodonta*
Cladocera: *Moina macrocopa* > *Moina micrura* > *Diaphanosoma oreintalis* > *Daphnia longirimis* > *Ceriodaphnia cornuta* > *Leydigio acanthocercoids*
Copepoda: *Heliodiaptomus viduus* > *Trpocyclops prasinus* > *Paracyclops fermbrialis* > *Mesocyclops leukarti* > *Eodiaptomus japonicus* > *Mesocyclops hyalian*
Ostracoda : *Hemicypris fossulata* > *Cyclocypris globosa* > *Cyclocypris kinkadia* > *Cypric median* > *Physocypris ferfuracea* > *Eucypris biaponsa* **>** *Cyprinottus nuduus*

Seasonal Average values of Physico-Chemical parameter of Dheku Fresh water Reservoir during Feb 2009 to Jan 2010.

Season / Parameter	Summer (Feb.2009-May2009)	Monsoon (Jun.2009-Sept.2009)	Winter (Oct.2009-Jan.2010)
Air Temp. (°C)	24.76 (Feb. 22, May, 25.2)	26.9 (Jun. 23.3, Aug. 26.0)	20.72 (Jan. 17.8, Oct. 22.2)
Water Temp.(°C)	24.19 (Mar. 21.3, Apr. 24.9)	23.83 (July. 21.6, Sept. 24.1)	22.3 (Dec. 19.3, Oct. 22.2)
Transparency (cm)	16.67 (Feb.13.5, May. 15.9)	13.55 (Jun. 12.1, Sept. 14.8)	16.64 (Nov. 13.5,Jan. 16.9)
pH	8.71 (May. 6.3, Feb. 7.1)	8.08 (Jun. 6.9, Sept. 7.8)	8.99 (Jan.7.57, Nov. 8.13
DO mg/L	6.67 (Feb. 4.31, May. 5.35)	7.97 (Jun.5.56, Sept.7.87)	8.20 (Oct. 6.44, Dec.7.21)
Free CO2 mg/L	33.9 (Apr. 32.6, May.36.8)	65.1 (Sept.54.0, Jun. 63.4)	76.2 (Dec.71.0,Jan. 77.6)
To. Alkalinity mg/L	271 (Feb. 234, Apr. 270)	238.5 (Aug. 215, Jun. 244)	299 (Oct. 249, Jan. 290)
Calcium mg/L	20.43 (Feb.17.0, May. 22.6)	22.43 (Sept.20.2, Aug. 24.0)	23.44 (Oct.20.3, Jan. 24.9)
To. Hardness mg/L	152.5 (Feb. 126, May. 148)	161.2 (Jun. 128, Sept. 164)	158.2 (Jan. 133,Oct. 147)
Chloride mg/L	98.6 (Feb. 93, May. 101)	70.03 (July. 69.2, Jun. 83.5)	79.58 (Oct. 63.2, Jan. 78.4)
Po4 mg/L	2.28 (Feb. 2.2, Apr. 2.46)	3.91 (Jun., 2.24, Aug. 3.84)	1.89 (Jan. 1.36, Nov. 2.28)
So4 mg/L	52.57 (May. 31.2, Feb. 44.0)	54.63 (May. 41.2, Feb. 48.8)	45.11 (Jan. 37.1, Oct. 40.7)

Note: Values in parentheses indicate min and max for the season

Seasonal Average values of Physico-Chemical parameter of Dheku Fresh water Reservoir during Feb 2010 to Jan 2011.

Season Parameter	Summer (Feb.2010-May2010)	Monsoon (Jun.2010-Sept.2010)	Winter (Oct.2010-Jan.2011)
Air Temp. (°C)	25.76 (Feb. 20, Apr. 25.5)	27.19 (Aug. 26.2, Sept. 29.2)	22.22 (Jan. 17.2, Oct. 21.9)
Water Temp.(°C)	23.19 (Feb. 20.0, May, 24.2)	23.83 (Jun. 20.3, Aug. 23.0)	21.33 (Jan. 17.8, Oct. 22.2)
Transparency (cm)	17.37 (Feb.13.5, May. 16.9)	14.55 (Jun. 12.1, Sept. 14.8)	17.94 (Nov. 13.5,Jan. 16.9)
pH	8.91 (May. 6.3, Feb. 8.4)	8.18 (Jun. 7.2, Sept. 8.4)	8.49 (Jan.7.57, Nov. 8.3)
DO mg/L	6.37 (Feb. 4.34, May. 5.65)	7.57 (Jun.5.46, Sept.7.67)	8.10 (Oct. 6.34, Dec.7.31)
Free CO2 mg/L	34.29 (Apr. 30.6, May.34.8)	66.11 (Sept.54.0, Jun. 64.4)	77.12 (Dec.70.0,Jan. 76.6)
To. Alkalinity mg/L	279 (Feb. 244, Apr. 274)	239.2 (Aug. 218, Jun. 228.5)	319 (Oct. 249, Jan. 307)
Calcium mg/L	21.43 (Feb.19.0, May. 24.6)	23.43 (Sept.20.2, Aug. 23.9)	24.44 (Oct.19.3, Jan. 23.5)
To. Hardness mg/L	162.5 (Feb. 136, May. 149)	171.2 (Jun. 129, Sept. 161)	168.2 (Jan. 143,Oct. 160.5)
Chloride mg/L	95.6 (Feb. 83, May. 98.2)	69.03 (July. 49.2, Jun. 82.5)	73.58 (Oct. 63.2, Jan. 70.6)
Po4 mg/L	3.38 (Feb. 2.9, Apr. 2.86)	4.91 (Jun., 2.24, Aug. 3.54)	2.99 (Jan. 1.96, Nov. 2.38)
So4 mg/L	54.77 (May. 31.2, Feb. 44.9)	56.43 (Aug. 31.2, Jun. 48.8)	46.41 (Jan. 29.1, Oct. 43.7)

Note: Values in parentheses indicate min and max for the season

KOLHI RESERVOIR:

03/02/2010 00:56

Kolhi Reservoir (Early Summer)

10/10/2010 09:44

Kolhi Reservoir (Winter)

13/12/2009 09:25

Kolhi Reservoir (Late Monsoon)

Topography of Kolhi Reservoir

Village :- Kolhi
Taluka : - Vaijapur
District :- Aurangabad
River :- Kolhi river
Date of project :- 1964
Length (meter) :- 790 meter
Height (meter) :- 14.87 meter
Catchment Area :- 42 Sq. km.
Latitude :- 74^0 40' 15" N
Longitude :- 20^0 03' 20" E

Meiofauna from Kolhi fresh water reservoir during Feb.2009 to Jan. 2011.

Rotifera	Cladocera	Copepoda	Ostracoda
Branchionus calyciflourus	*Moina macrocopa*	*Heliodiaptomus viduus*	*Hemicypris fossulata*
Branchionus caudatus	*Moina micrura*	*Trpocyclops prasinus*	*Physocypris ferfuracea*
Branchionus forficula	*Diaphanosoma sursi*	*Paracyclops fermbrialis*	*Eucypris biaponsa*
Branchionus angularis	*Daphnia longirimis*	*Mesocyclops leukarti*	*Cyprinottus nuduus*
Branchionus bidentata	*Macrothrix rosea*	*Eodiaptomus japonicus*	
Keratella trophica	*Leydigio acanthocercoids*		
Trichotria teteractis	*Ceriodaphnia cornuta*		
Polyarthra major	*Chydorous spharicus*		
Filinia terminalis	*Plexares similis*		
Asplanchna periodontal			
Lepadella sp.			
Lecane luna			

Seasonal average value of Population density of Meiofauna (org/lit) in Kolhi Fresh water reservoir during Feb 2009 to Jan 2010.

Seasons Zooplankton	Summer (Feb.2009-May2009)	Monsoon (Jun.2009-Sept.2009)	Winter (Oct.2009-Jan.2010)
Rotifera*	**206.5** Min. May (198) Max. Feb (220)	**211.5** Min. Sept. (188) Max. July (232)	**158.25** Min. Dec.(145) Max. Nov. (171)
Cladocera	**39.5** Min. Apr. (32) Max. May (48)	**28.5** Min. Aug. (24) Max. Jun. (32)	**31.25** Min. Oct. (22) Max. Jan. (41)
Copepoda	**141** Min. Apr. (132) Max. May (148)	**123** Min. Sept. (102) Max. Jun (152)	**141** Min. Dec. (132) Max. Jan. (148)
Ostracoda	**13** Min. Feb. (8) Max. May (18)	**24** Min. Jun. (20) Max. Aug. (32)	**31** Min. Nov. (26) Max. Oct. (38)

Note: * Shows the Dominant group.

Seasonal average value of Population density of Meiofauna (org/lit) in Kolhi Fresh water reservoir during Feb 2010 to Jan 2011.

Seasons Zooplankton	Summer (Feb.2010-May2010)	Monsoon (Jun.2010-Sept.2010)	Winter (Oct.2010-Jan.2011)
Rotifera	**212** Min. May (198) Max. Feb. (228)	**188** Min. Sept. (172) Max. Aug. (208)	**151.5** Min. Jan. (133) Max. Oct. (168)
Cladocera	**11.5** Min. Apr. (8) Max. May (16)	**7** Min. July (2) Max. Jun. (14)	**16.25** Min. Oct. (10) Max. Jan. (27)
Copepoda*	**278** Min. Feb. (244) Max. May (304)	**255** Min. Sept. (212) Max. July (286)	**199.75** Min. Dec. (178) Max. Jan. (221)
Ostracoda	**32** Min. Feb. (26) Max. Mar. (38)	**43** Min. Jun. (32) Max. Aug. (54)	**25.25** Min. Jan. (19) Max. Nov. (38)

Note: * Shows the Dominant group.

Group Dominance

I st Year: Rotifera > Copepoda > Cladocera > Ostracoda

II nd Year: Copepoda > Rotifera > Ostracoda > Cladocera

Species Dominance

Rotifera : *Branchionus angularis* > *Keratella trophica* > *Branchionus calyciflourus* > *Branchionus caudatus* > *Branchionus forficula* > *Branchionus bidentata* > *Trichotria teteractis* > *Filinia terminalis* > *Asplanchna periodontal* > *Lepadella sp.* > *Lecane luna* > *Polyarthra major*

Cladocera: *Moina macrocopa* > *Moina micrura* > *Diaphanosoma sursi* > *Daphnia longirimis* > *Macrothrix rosea* > *Ceriodaphnia cornuta* > *Leydigio acanthocercoids* > *Chydorous spharicus* > *Plexares similis*

Copepoda: *Heliodiaptomus viduus* > *Trpocyclops prasinus* > *Paracyclops fermbrialis* > *Mesocyclops leukarti* > *Eodiaptomus japonicus*

Ostracoda : *Hemicypris fossulata* > *Physocypris ferfuracea* > *Eucypris biaponsa* > *Cyprinottus nuduus*

Seasonal Average values of Physico-Chemical parameter of Kolhi Fresh water Reservoir during Feb 2009 to Jan 2010.

Season **Parameter**	**Summer (Feb.2009-May2009)**	**Monsoon (Jun.2009-Sept.2009)**	**Winter (Oct.2009-Jan.2010)**
Air Temp. (°C)	29.38 (Jan26.1 May 31.8)	26.85 (Aug. 26.1, Sep. 28.3)	24.89 (Nov. 19.3, Jan.25.2)
Water Temp.(°C)	26.61 (Mar. 17.4,May 26.5)	23.72 (Sept.24.8, Jun. 27.4)	21.62 (Dec. 14.6, Oct. 25.5)
Transparency (cm)	16.18 (Feb.14.5, Apr. 15.9)	18.8 (Sept. 12.5, Jun. 17.1)	19.82 (Oct. 13.8, Jan. 19.9)
pH	6.27 (Mar. 6.5, May. 7.8)	6.73 (Aug. 5.7, Jun. 7.8)	7.28 (Dec. 6.4, Nov. 8.27)
DO mg/L	4.46 (Feb.3.2, May.5.5)	5.84 (Jun. 5.5, Sept. 6.7)	6.22 (Oct. 6.7, Aug.8.1)
Free CO2 mg/L	67.2 May.61.6, Feb. 81.4)	49.6 (Sep.31.3, Jul.55.6)	24.6 (Nov. 16.5, Jan. 25.2)
To. Alkalinity mg/L	245.5 (Feb. 220, May.275)	262.1 (Jun. 187, Sept. 220)	232.1 (Oct.219, Jan.280)
Calcium mg/L	49.27 (Mar.31.5, May 63.7)	35.69 (Sept. 25.7, Aug. 51.0)	39.57 (Oct.30.1, Jan. 42.1)
To. Hardness mg/L	139.2 (Feb. 120.6 May 144)	111.4 (Sept. 98, Aug. 126)	142.0 (Oct. 127, Jan. 158)
Chloride mg/L	168.8 (Feb.121, May 170)	127.1 (Jun. 110.9, Aug.141)	135.4 (Oct. 116.6, Jan. 136)
Po4 mg/L	2.61 (Apr. 2.16, May. 3.20)	3.79 (Aug. 2.28, July.3.64)	2.53 (Nov. 2.09, Dec. 2.94)
So4 mg/L	30.94 (Feb. 25.3, May. 43.6)	24.39 (Sept. 21.2, Jul. 46.9)	15.45 (Jan. 11.5, Oct. 20.5)

Note: Values in parentheses indicate min and max for the season

Seasonal Average values of Physico-Chemical parameter of Kolhi Fresh water Reservoir during Feb 2010 to Jan 2011.

Season Parameter	Summer (Feb.2010-May2010)	Monsoon (Jun.2010-Sept.2010)	Winter (Oct.2010-Jan.2011)
Air Temp. (°C)	29.38 (Feb. 27.1, May. 32.7)	26.85 (Aug. 23.3, Sep. 28.9)	24.89 (Nov. 19.6, Jan. 26.0)
Water Temp.(°C)	26.61 (Mar.24.3, May.27.7)	23.72 (Sept. 17.9, Jun. 25.7)	21.62 (Dec. 14.6, Oct.25.7)
Transparency (cm)	16.18 (Feb.14.6, May. 16.9)	18.8 (Sept. 15.1, July. 18.6)	19.82 (Nov. 12.1, Jan. 19.1)
pH	6.27 (Mar. 5.05, May. 7.03)	6.73 (Aug.5.1, Sept. 7.7)	7.28 (Jan. 6.78, Nov. 8.35)
DO mg/L	4.46 (Apr. 4.02, Feb. 6.68)	5.84 (Jun.5.78, Sept.7.28)	6.22 (Jan. 5.19, Oct. 7.63)
Free CO2 mg/L	67.2 (May. 55, Mar. 90.2)	49.6 (Sept. 29.1, Jun. 50.6)	24.6 (Dec. 19.8, Jan. 31.9)
To. Alkalinity mg/L	245.5 (Feb. 213, May. 248)	262.1 (Jul. 205, Sept. 279)	232.1 (Oct. 203, Jan. 241)
Calcium mg/L	49.27 (Feb. 29.1, May. 54.2)	35.69 (Sept. 26.5, Aug. 52.5)	39.57 (Oct. 31.3, Jan. 43.2)
To. Hardness mg/L	139.2 (Feb. 121, Apr. 157)	111.4 Sept. 101, Aug. 127)	142.0 (Oct. 129, Jan. 150.5)
Chloride mg/L	168.8 (Feb. 160, May 172.2)	127.1 (Sept.120.8 , Jun. 139)	135.4 (Oct. 130.8, Jan. 157)
Po4 mg/L	2.61 (Feb. 2.12, May. 3.4)	3.79 (Jun. 3.54, Aug. 3.78)	2.53 (Jan. 1.9, Oct. 2.98)
So4 mg/L	30.94 (Feb. 29.9, May. 42.7)	24.39 (Sept. 21.6, Jul. 48.5)	15.45 (Jan. 12.5, Oct. 23.8)

Note: Values in parentheses indicate min and max for the season

NARANGI RESERVOIR:

Narangi Reservoir (Monsoon)

03/02/2010 01:46

Narangi Reservoir (Early Summer)

10/10/2010 10:39

Narangi Reservoir (Winter)

Topography of Narangi Reservoir

Village :- Vaijapur
Taluka : - Vaijapur
District :- Aurangabad
Length (meter) :- 770 meter
Height (meter) :- 15.87 meter
Catchment Area :- 48 Sq. km.
Latitude :- 19^0 56’ 30” N
Longitude :- 74^0 42’ 54” E

Meiofauna from Narangi fresh water reservoir during Feb.2009 to Jan. 2011.

Rotifera	Cladocera	Copepoda	Ostracoda
Branchionus calyciflourus	*Moina macrocopa*	*Heliodiaptomus viduus*	*Hemicypris fossulata*
Branchionus caudatus	*Moina micrura*	*Paracyclops fermbrialis*	*Cyclocypris globosa*
Branchionus forficula	*Moina branchiata*	*Mesocyclops leukarti*	*Cyclocypris kinkadia*
Branchionus angularis	*Diaphanosoma oreintalis*	*Eodiaptomus japonicus*	*Cypric median*
Branchionus bidentata	*Diaphanosoma sursi*	*Mesocyclops hyalian*	
Keratella trophica	*Daphnia longirimis*		
Trichotria teteractis	*Macrothrix rosea*		
Polyarthra major	*Leydigio acanthocercoids*		
Filinia terminalis	*Ceriodaphnia cornuta*		
Asplanchna periodontal			
Trichocerca			

Seasonal average value of Population density of Meiofauna (org/lit) in Narangi Fresh water reservoir during Feb 2009 to Jan 2010.

Seasons **Zooplankton**	**Summer** **(Feb.2009-May2009)**	**Monsoon** **(Jun.2009-Sept.2009)**	**Winter** **(Oct.2009-Jan.2010)**
Rotifera*	**278** Min. Feb. (244) Max. May (304)	**255** Min. Sept. (212) Max. July (286)	**199.75** Min. Dec. (178) Max. Jan. (221)
Cladocera	**32** Min. Feb. (26) Max. Mar. (38)	**43** Min. Jun. (32) Max. Aug. (54)	**25.25** Min. Jan. (19) Max. Nov. (38)
Copepoda	**212** Min. May (198) Max. Feb. (228)	**188** Min. Sept. (172) Max. Aug. (208)	**151.5** Min. Jan. (133) Max. Oct. (168)
Ostracoda	**11.5** Min. Apr. (8) Max. May (16)	**7** Min. July (2) Max. Jun. (14)	**16.25** Min. Oct. (10) Max. Jan. (27)

Note: * Shows the Dominant group.

Seasonal average value of Population density of Meiofauna (org/lit) in Narangi Fresh water reservoir during Feb 2010 to Jan 2011.

Seasons **Zooplankton**	**Summer** **(Feb.2010-May2010)**	**Monsoon** **(Jun.2010-Sept.2010)**	**Winter** **(Oct.2010-Jan.2011)**
Rotifera	**55.5** Min. May (44) Max. Apr. (66)	**78** Min. July (64) Max. Jun. (88)	**63** Min. Jan. (42) Max. Oct. (78)
Cladocera	**13** Min. Mar. (2) Max. May (40)	**27.5** Min. Aug. (16) Max. Jun. (44)	**20.75** Min. Jan. (11) Max. Feb. (29)
Copepoda*	**206** Min. Mar. (184) Max. May (240)	**327.5** Min. Aug. (278) Max. Jun (400)	**231.75** Min. Jan. (201) Max. Oct. (260)
Ostracoda	**18** Min. Feb. (8) Max. May (28)	**65.5** Min. Sept. (44) Max. July (82)	**34.75** Min. Jan. (29) Max. Oct. (42)

Note: * Shows the Dominant group.

Group Dominance
I st Year: Rotifera > Copepoda > Cladocera > Ostracoda
II nd Year: Copepoda > Rotifera > Ostracoda > Cladocera

Species Dominance
Rotifera : *Branchionus calyciflourus > Branchionus caudatus > Branchionus forficula > Branchionus angularis > Branchionus bidentata > Keratella trophica > Trichotria teteractis > Polyarthra major > Filinia terminalis > Asplanchna periodontal > Trichocerca*
Cladocera: *Moina macrocopa > Moina micrura > Moina branchiata > Diaphanosoma oreintalis > Diaphanosoma sursi > Daphnia longirimis > Macrothrix rosea > Leydigio acanthocercoids > Ceriodaphnia cornuta*
Copepoda: *Heliodiaptomus viduus > Paracyclops fermbrialis > Mesocyclops leukarti > Eodiaptomus japonicus > Mesocyclops hyalian*
Ostracoda : *Hemicypris fossulata > Cyclocypris globosa > Cypric median > Cyclocypris kinkadia*

Seasonal Average values of Physico-Chemical parameter of Narangi Fresh water Reservoir during Feb 2009 to Jan 2010.

Season Parameter	Summer (Feb.2009-May2009)	Monsoon (Jun.2009-Sept.2009)	Winter (Oct.2009-Jan.2010)
Air Temp. (°C)	28.42 (Jan26.1 May 27.8)	29.55 (Aug. 26.1, Sep. 29.3)	23.59 (Nov. 20.3, Jan.24.2)
Water Temp.(°C)	27.47 (Mar. 22.6, May. 26.5)	24.78 (Aug. 22.5, Jun. 25.8)	22.76 (Dec. 21.2, Oct. 24.1)
Transparency (cm)	16.5 (Feb.15.5, May. 16.9)	17.8 (Aug. 11.3, Jun. 17.3)	14.9 (Oct. 14.2, Jan. 15.9)
pH	7.39 (Mar. 6.31, Apr. 8.0)	7.15 (July. 6.23, Sept. 7.22)	8.68 (Dec. 6.0, Nov. 7.55)
DO mg/L	5.74 (Feb. 4.28, May.6.85)	6.59 (July. 3.94, Jun. 4.26)	7.78 Oct. 4.55, Jan. 6.41)
Free CO_2 mg/L	72.7 (May. 59.6, Feb. 70.4)	37.9 (Aug.31.0, Sept. 39.8)	21.3 (Oct. 17.4, Jan. 24.0)
To. Alkalinity mg/L	245 (Feb. 212, May. 247)	179 (Jun. 140, Sept. 201)	310 (Oct. 247, Jan. 304)
Calcium mg/L	56.93 (Mar. 48.5, Apr. 53.9)	41.93 (July. 31.2, Aug. 45.6)	39.14 (Nov. 35.0, Jan. 44.0)
To. Hardness mg/L	176.2 (Feb. 161, May. 179)	179.4 (Aug.146, Jun. 173)	163.8 (Jan. 130, Nov. 160)
Chloride mg/L	63.13 (Feb. 46, May. 61.3)	31.74 (Sept. 20.8, Jun. 35.2)	44.02 (Oct.35, Jan. 48.1)
PO_4 mg/L	2.94 (Feb. 2.18, Apr. 2.34)	3.85 (Jun. 2.18, Aug. 3.78)	2.58 (Jan. 1.98, Nov. 2.61)
SO_4 mg/L	52.33 (May. 36.3, Feb. 43.7)	54.32 (Sept. 37.2, Jun. 54.6)	43.60 (Jan. 27.4, Oct. 44.8)

Note: Values in parentheses indicate min and max for the season

Seasonal Average values of Physico-Chemical parameter of Narangi Fresh water Reservoir during Feb 2010 to Jan 2011.

Season / Parameter	Summer (Feb.2010-May2010)	Monsoon (Jun.2010-Sept.2010)	Winter (Oct.2010-Jan.2011)
Air Temp. (°C)	29.60 (Jan26.1 May 30.8)	30.85 (Aug. 25.1, Sep. 29.3)	24.59 (Nov. 21.3, Jan.24.2)
Water Temp.(°C)	28.67 (May. 25, Mar. 28.1)	26.71 (July. 21.7, Sept.25.8)	23.66 (Dec.17.2, Oct. 23.6)
Transparency (cm)	18.43 (Apr. 13.6, Feb. 17.9)	19.15 (July. 17.7, Sept.21.8)	15.60 (Nov. 15.5,Jan. 16.3)
pH	6.79 (May. 6.3, Feb. 7.1)	6.5 (Jun. 6.2, Sept. 7.7)	7.38 (Jan.7.57, Nov. 8.13)
DO mg/L	5.38 (Feb. 3.31, May. 5.35)	6.82 (Jun.5.56, Sept.6.87)	7.91 (Oct. 7.44, Dec.8.21)
Free CO2 mg/L	72.4 (Apr. 70.6, May.85.8)	33.5 (Sept.33.0, Jun. 60.4)	25.6 (Dec.21.0,Jan. 39.6)
To. Alkalinity mg/L	254 (Feb. 234, Apr. 280)	197 (Aug. 185, Jun. 244)	363 (Oct. 219, Jan. 350)
Calcium mg/L	59.81 (Feb.47.0, May. 56.6)	47.78 (Sept.31.2, Aug. 44.0)	37.34 (Oct.32.3, Jan. 44.9)
To. Hardness mg/L	176.4 (Feb. 146, May. 168)	179.6 (Jun. 117, Sept. 142)	163.3 (Jan. 137,Oct. 162)
Chloride mg/L	64.33 (Feb. 58, May. 71)	31.64 (July. 25, Jun. 34)	45.22 (Oct. 25, Jan. 44)
PO4 mg/L	2.86 (Feb. 2.2, Apr. 2.46)	4.67 (Jun., 3.24, Aug. 3.84)	3.30 (Jan. 2.96, Nov. 3.28)
SO4 mg/L	54.23 (May. 31.2, Feb. 47.0)	58.32 (Aug. 23.8, Jun. 47.5)	44.10 (Jan. 23.1, Oct. 49.7)

Note: Values in parentheses indicate min and max for the season

SARANGI RESERVOIR:

Sarangi Reservoir (Summer)

26/08/2009 09:14

Sarangi Reservoir (Monsoon)

11/10/2009 17:13

Sarangi Reservoir (Winter)

Topography of Sarangi Reservoir

Village :- Vaijapur
Taluka : - Vaijapur
District :- Aurangabad
Date of project :-
Length (meter) :- meter
Height (meter) :- meter
Catchment Area :- Sq. km.
Latitude :- 19^0 56' 30" N
Longitude :- 74^0 42' 54" E

Meiofauna from Sarangi fresh water reservoir during Feb.2009 to Jan. 2011.

Rotifera	Cladocera	Copepoda	Ostracoda
Branchionus calyciflourus	*Moina macrocopa*	*Heliodiaptomus viduus*	*Hemicypris fossulata*
Branchionus forficula	*Moina micrura*	*Trpocyclops prasinus*	*Cypric median*
Branchionus angularis	*Moina branchiata*	*Paracyclops fermbrialis*	*Eucypris biaponsa*
Branchionus bidentata	*Diaphanosoma oreintalis*	*Mesocyclops leukarti*	*Cyprinottus nuduus*
Keratella trophica	*Diaphanosoma sursi*	*Eodiaptomus japonicus*	
Trichotria teteractis	*Daphnia longirimis*	*Mesocyclops hyalian*	
Polyarthra major	*Macrothrix rosea*		
Filinia terminalis	*Leydigio acanthocercoids*		
Asplanchna periodontal	*Ceriodaphnia cornuta*		
Lepadella sp.	*Chydorous spharicus*		
Lecane luna	*Plexares similis*		
Philodina sp.			
Trichocerca sp.			

Seasonal average value of Population density of Meiofauna (org/lit) in Sarangi Fresh water reservoir during Feb 2009 to Jan 20010.

Seasons / Zooplankton	Summer (Feb.2009-May2009) Average	Monsoon (Jun.2009-Sept.2009) Average	Winter (Oct.2009-Jan.2010) Average
Rotifera*	**206** Min. Mar. (184) Max. May (240)	**327.5** Min. Aug. (278) Max. Jun (400)	**231.75** Min. Jan. (201) Max. Oct. (260)
Cladocera	**18** Min. Feb. (8) Max. May (28)	**65.5** Min. Sept. (44) Max. July (82)	**34.75** Min. Jan. (29) Max. Oct. (42)
Copepoda	**55.5** Min. May (44) Max. Apr. (66)	**78** Min. July (64) Max. Jun. (88)	**63** Min. Jan. (42) Max. Oct. (78)
Ostracoda	**13** Min. Mar. (2) Max. May (40)	**27.5** Min. Aug. (16) Max. Jun. (44)	**20.75** Min. Jan. (11) Max. Feb. (29)

Note: * Shows the Dominant group.

Seasonal average value of Population density of Meiofauna (org/lit) in Sarangi Fresh water reservoir during Feb 2010 to Jan 2011.

Seasons / Zooplankton	Summer (Feb.20010-May2010)	Monsoon (Jun.2010-Sept.2010)	Winter (Oct.2010-Jan.2011)
Rotifera*	**257** Min. May (202) Max. Mar. (280)	**149.5** Min. Sept. (112) Max. Jun. (180)	**90.75** Min. Dec. (78) Max. Oct. (102)
Cladocera	**38** Min. Feb. (32) Max. Apr. (44)	**31** Min. Sept. (18) Max. July (40)	**9.5** Min. Jan. (7) Max. Dec. (13)
Copepoda	**127** Min. Apr. (120) Max. Feb. (136)	**98** Min. Sept.(74) Max. Jun. (112)	**66.5** Min. Oct. (58) Max. Jan. (77)
Ostracoda	**27** Min. Mar. (16) Max. May (40)	**24.5** Min. Sept. (18) Max. Jun. (32)	**29** Min. Oct. (16) Max. Nov. (49)

Note: * Shows the Dominant group.

Group Dominance
I st Year: Rotifera > Copepoda > Cladocera > Ostracoda
II nd Year: Rotifera > Copepoda > Cladocera > Ostracoda

Species Dominance

Rotifera : *Branchionus calyciflourus > Branchionus forficula > Branchionus angularis > Branchionus bidentata > Keratella trophica > Trichotria teteractis > Polyarthra major >Filinia terminalis > Asplanchna periodontal > Lepadella sp. > Lecane luna > Trichocerca s.p > Philodina sp.*

Cladocera: *Moina macrocopa > Moina micrura > Moina branchiata > Diaphanosoma oreintalis > Diaphanosoma sursi > Daphnia longirimis > Macrothrix rosea > Leydigio acanthocercoids > Ceriodaphnia cornuta > Chydorous spharicus > Plexares similis*

Copepoda: *Heliodiaptomus viduus > Trpocyclops prasinus > Mesocyclops leukarti > Paracyclops fermbrialis > Eodiaptomus japonicus > Mesocyclops hyalian*

Ostracoda : *Hemicypris fossulata > Cypric median > Cyprinottus nuduus > Eucypris biaponsa*

Seasonal Average values of Physico-Chemical parameter of Sarangi Fresh water Reservoir during Feb 2009 to Jan 2010.

Season / Parameter	Summer (Feb.2009-May2009)	Monsoon (Jun.2009-Sept.2009)	Winter (Oct.2009-Jan.2010)
Air Temp. (°C)	28.60 (Feb. 24.2, May. 27.6)	29.85 (Sept. 21.3, July. 26.1)	23.59 (Dec. 20.3, Oct. 24.2)
Water Temp.(°C)	27.67 (Feb. 23.1, May. 27.7)	24.70 (Sept. 23.1, July. 25.7)	22.66 (Dec. 19.5, Oct. 23.1)
Transparency (cm)	16.3 (Feb. 13.8, Apr. 15.4)	17.5 (Sept. 14.5, Jun. 17.8)	14.6 (Jan. 12.4, Nov. 15.1)
pH	7.9 (Mar. 6.7, May. 7.6)	7.5 (July. 6.5, Sept. 7.11)	8.78 (Dec. 7.7, Oct. 8.3)
DO mg/L	6.74 (Feb. 5.18, May. 6.16)	7.59 (Jun. 6.72, Sept. 7.42)	8.78 (Jan. 7.7, Nov. 8.12)
Free CO2 mg/L	74.7 (Feb. 47.6, May. 64)	39.9 (Jun. 22.8, Sept. 38.6)	22.3 (Jan. 20.8, Oct. 24.8)
To. Alkalinity mg/L	245 (Mar. 236, May.250)	189 (July. 112, Sept. 188)	313 (Oct. 264, Jan. 312)
Calcium mg/L	57.93 (May. 27.6, Feb. 48,6)	42.93 (Jun. 32.2, Aug. 41.6)	35.14 (Oct. 23.4, Dec. 36.4)
To. Hardness mg/L	186.2 (Feb. 149, May. 186)	189.4 (Jun. 149, Sept. 188)	173.8 (Jan. 148, Oct. 169)
Chloride mg/L	65.13 (Mar. 35, May. 63.5)	32.74 (Sept. 29.5, Jun. 37.2)	46.02 (Oct. 39.9, Jan. 49.3)
PO4 mg/L	2.74 (May. 2.0, Apr. 2.64)	3.65 (Sept. 3.68, Jun. 3.98)	2.28 (Jan.1.54, Oct. 2.3)
SO4 mg/L	53.13 (Feb. 53.4, May. 60.0)	57.42 (Sept. 54.3, Jun. 62.5)	40.70 (Jan. 33.7, Oct. 46.9)

Note: Values in parentheses indicate min and max for the season

Seasonal Average values of Physico-Chemical parameter of Sarangi Fresh water Reservoir during Feb 2010 to Jan 2011.

Season Parameter	Summer (Feb.2010-May2010)	Monsoon (Jun.2010-Sept.2010)	Winter (Oct.2010-Jan.2011)
Air Temp. (°C)	29.60 (Feb. 23.3, May. 27.4)	30.85 (May. 23.4, Feb. 29.7)	24.59 (Dec. 20.9, Oct. 23.6)
Water Temp.(°C)	28.67 (Feb. 23.3, May. 27.4)	26.71 (May. 21.4, Feb. 25.7)	23.66 (Dec. 19.9, Oct. 21.6)
Transparency (cm)	18.3 (Mar. 12.3, May. 17.5)	19.5 (Aug. 14.5, Jun. 20.5)	15.6 (Oct. 13.4, Nov. 14.8)
pH	7.79 (Apr. 6.7, Mar. 6.9)	6.5 (Jun. 6.3, Sept. 7.4)	8.38 (Jan. 6.9, Dec. 7.11)
DO mg/L	5.34 (Feb. 5.10, May. 6.69)	6.89 (Jun. 6.28, Sept. 8.26)	7.98 (Jan. 6.86, Oct. 7.80)
Free CO2 mg/L	72.7 (Feb. 46.4, May. 70.4)	33.9 (Jun. 27.2, Sept. 38.0)	25.3 (Jan. 22.4, Oct.41.2)
To. Alkalinity mg/L	256 (Mar. 244, May. 268)	198 (Aug. 116, Sept. 170)	366 (Dec 224, Jan. 25\60)
Calcium mg/L	59.93 (Apr. 38.8, Feb. 54.0)	47.93 (Jun. 37.9, Aug. 46.4)	37.14 (Jan. 20.8, Dec. 35.6)
To. Hardness mg/L	176.2 (Feb 142, Mar. 168)	179.4 (Aug. 152, Sept. 172)	163.8 (Jan. 130, Oct. 154)
Chloride mg/L	64.13 (Feb. 55, May. 63.5)	31.74 (Sept. 69.5, Jun. 107)	45.12 (Oct. 40.8, Jan. 97.9)
PO4 mg/L	2.84 (Mar. 2.3, May. 2.69)	4.65 (Jun. 3.04, Sept. 4.64)	3.28 (Oct. 3.08, Jan. 3.10)
SO4 mg/L	54.13 (Feb. 31.8, May. 54.2)	58.42 (Sept.55.1, Jun. 61.7)	44.70 (Jan. 32.9, Oct. 45.7)

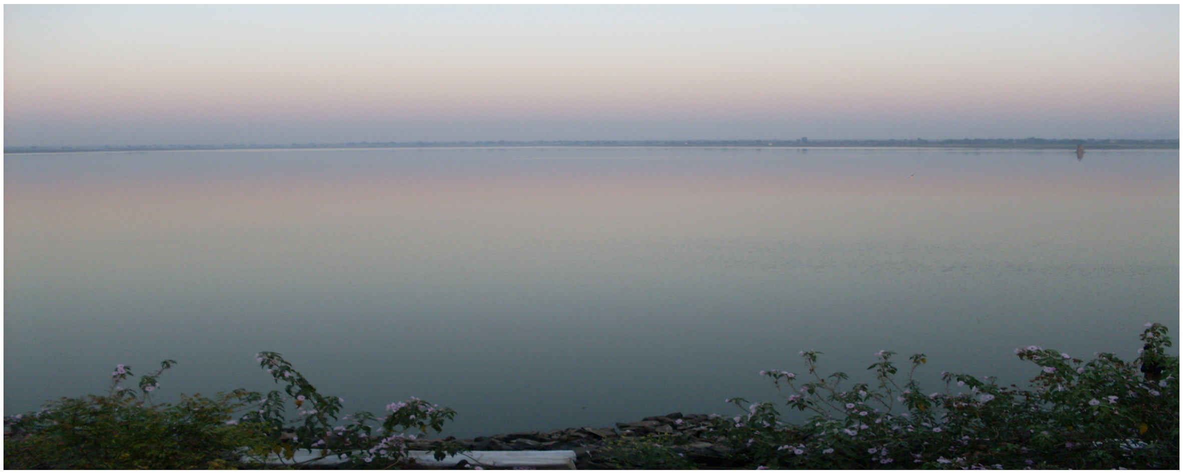
Note: Values in parentthes indicate min and max for the season

SUKHANA RESERVOIR:

Sukhana Reservoir (Summer)

13/08/2009 08:09

Sukhana Reservoir (Monsoon)



Sukhana Reservoir (Winter)

Topography of Sukhana Reservoir

Village : - Garkheda
Taluka: - Aurangabad
District: - Aurangabad
River: - Sukhana river
Date of project: - 27/08/1963
Length (meter): - 3536 m
Height (meter): - 16.92 m
Catchment Area: - 301.05 Sq.km
Area of Irrigation: - 4160 hector.
Latitude: - 9^0 49' N
Longitude: - 75^0 31' E
Distance from Aurangabad: - 32 km.

Meiofauna from Sukhana fresh water reservoir during Feb. 2009 to Jan 2011.

Rotifera	Cladocera	Copepoda	Ostracoda
Branchionus caudatus	*Moina macrocopa*	*Ergasilus versicolor*	*Hemicypris fossulata*
Branchionus forficula	*Diaphanosoma sursi*	*Trpocyclops prasinus*	*Cypriochonca alba*
Branchionus quqdredenta	*Daphnia longirimis*	*Paracyclops fermbrialis*	*Cyclocypris globosa*
Branchionus bidentata	*Macrothrix rosea*	*Mesocyclops leukarti*	*Cyclocypris kinkadia*
Keratella trophica	*Ceriodaphnia laticaudata*	*Eodiaptomus japonicus*	
Filinia terminalis	*Chydorus sphaericus*		
Lecane luna	*Scapholebris kingi*		
Philodina			

Seasonal average value of Population density of Meiofauna (org/lit) in Sukhana Fresh water reservoir during Feb 2009 to Jan 2010.

Seasons Zooplankton	Summer (Feb.2009-May2009)	Monsoon (Jun.2009-Sept.2009)	Winter (Oct.2009-Jan.2010)
Rotifera	**53** Min. Feb (38) Max. Apr. (80)	**40** Min July (36) Max. June (46)	**50** Min. Oct.(44) Max. Nov. (58)
Cladocera	**61.5** Min. Feb. (40) Max. May (80)	**63** Min. Jun. (48) Max. Aug. (72)	**53** Min. Dec. (48) Max. Nov. (62)
Copepoda*	**86** Min. Feb. (60) Max. May (102)	**82** Min. Aug. (82) Max. Sept. (90)	**76** Min. June (72) Max. July (80)
Ostracoda	**22** Min. May (12) Max. Feb. (20)	**17** Min. Sept. (10) Max. June (22)	**11.5** Min. Nov.(4) Max. Jan. (18)

Note: * Shows the Dominant group.

Seasonal average value of Population density of Meiofauna (org/lit) in Sukhana Fresh water reservoir during Feb 2010 to Jan 2011.

Seasons Zooplankton	Summer (Feb.2010-May2010)	Monsoon (Jun.2010-Sept.2010)	Winter (Oct.2010-Jan.2011)
Rotifera	**107** Min. Mar. (48) Max. Apr. (152)	**72** Min Sept. (52) Max. Jun. (94)	**85.5** Min. Oct. (62) Max. Jan. (102)
Cladocera*	**147** Min. Mar. (82) Max. Feb. (214)	**69.5** Min. Sept. (60) Max. Jun. (90)	**102** Min. Oct. (72) Max. Jan. (162)
Copepoda	**72** Min. Apr. (44) Max. Feb. (96)	**33.5** Min. Aug. (22) Max. Jun. (42)	**46.5** Min. Nov.(36) Max. Jan.(66)
Ostracoda	**27** Min. Apr. (12) Max. Feb. (60)	**5.5** Min. Jun. (0) Max. July (10)	**19** Min. Dec. (16) Max. Jan. (22)

Note: * Shows the Dominant group.

Group Dominance

I st Year: Copepoda > Cladocera > Rotifera > Ostracoda

II nd Year: Cladocera > Copepoda > Rotifera > Ostracoda

Species Dominance

Rotifera : *Branchionus quqdredenta* > *Branchionus caudatus* > *Filinia terminalis* > *Branchionus forficula* > *Branchionus bidentata* > *Keratella trophica* > *Lecane luna* **>** *Philodina sp.*

Cladocera: *Moina macrocopa* > *Diaphanosoma* sursi > *Daphnia longirimis* > *Macrothrix rosea* > *Ceriodaphnia laticaudata* > *Chydorus sphaericus* > *Scapholebris kingi*

Copepoda: *Trpocyclops prasinus* > *Paracyclops fermbrialis* > *Mesocyclops leukarti* > *Eodiaptomus japonicus* > *Ergasilus versicolor*

Ostracoda : *Hemicypris fossulata* > *Cypriochonca alba* > *Cyclocypris* globosa > *Cyclocypris kinkadia*

Seasonal Average values of Physico-Chemical parameter of Sukhana Fresh water Reservoir during Feb 2009 to Jan 2010.

Season Parameter	Summer (Feb.2010-May2009)	Monsoon (Jun.2010-Sept.2010)	Winter (Oct.2010-Jan.2011)
Air Temp. (°C)	23.46 (Feb. 20, Apr. 35.5)	23.19 (Aug. 26.2, Sept. 29.2)	19.72
Water Temp.(°C)	23.29 (Feb. 20.0, May, 24.2)	22.53 (Jun. 20.3, Aug. 23.0)	20.3 (Jan. 17.8, Oct. 22.2)
Transparency (cm)	16.57 (Feb.13.5, May. 15.9)	14.55 (Jun. 12.1, Sept. 14.8)	15.64 (Nov. 13.5,Jan. 16.9)
pH	7.51 (May. 6.3, Feb. 7.4)	6.48 (Jun. 6.2, Sept. 7.4)	7.79 (Jan.7.57, Nov. 8.3)
DO mg/L	6.57 (Feb. 4.34, May. 5.65)	7.57 (Jun.5.46, Sept.7.67)	8.41 (Oct. 6.34, Dec.7.31)
Free CO2 mg/L	32.9 (Apr. 30.6, May.34.8)	63.1 (Sept.54.0, Jun. 64.4)	74.2 (Dec.71.0,Jan. 76.6)
To. Alkalinity mg/L	221 (Feb. 214, Apr. 224)	216.5 (Aug. 213, Jun. 223.5)	276 (Oct. 249, Jan. 277)
Calcium mg/L	23.43 (Feb.17.0, May. 24.6)	22.43 (Sept.20.2, Aug. 23.9)	21.44 (Oct.19.3, Jan. 23.5)
To. Hardness mg/L	122.5 (Feb. 116, May. 130)	134.2 (Jun. 119, Sept. 141)	152.2 (Jan. 143,Oct. 149.5)
Chloride mg/L	108.6 (Feb. 103, May. 110.2)	83.03 (July. 79.2, Jun. 82.5)	85.58 (Oct. 83.2, Jan. 87.6)
PO4 mg/L	2.68 (Feb. 2.0, Apr. 2.46)	3.61 (Jun., 3.24, Aug. 3.54)	2.49 (Jan. 1.96, Nov. 2.38)
SO4 mg/L	43.57 (May. 31.2, Feb. 44.9)	45.63 (Aug. 41.2, Jun. 48.8)	38.11 (Jan. 29.1, Oct. 37.7)

Note: Values in parentheses indicate min and max for the season

Seasonal Average values of Physico-Chemical parameter of Sukhana Fresh water Reservoir during Feb 2009 to Jan 2010.

Season Parameter	Summer (Feb.2009-May2010)	Monsoon (Jun.2009-Sept.2010)	Winter (Oct.2009-Jan.2010)
Air Temp. (°C)	24.76 (Feb. 22, May, 25.2)	25.9 (Jun. 23.3, Aug. 26.0)	21.72 (Jan. 17.8, Oct. 22.2)
Water Temp.(°C)	24.19 (Mar. 21.3, Apr. 24.9)	23.83 (July. 21.6, Sept. 24.1)	21.3 (Dec. 19.3, Oct. 22.20
Transparency (cm)	15.67 (Feb.13.5, May. 15.9)	13.55 (Jun. 12.1, Sept. 14.8)	14.64 (Nov. 13.5,Jan. 16.9)
pH	7.11 (May. 6.3, Feb. 7.1)	6.08 (Jun. 6.2, Sept. 7.7)	7.39 (Jan.7.57, Nov. 8.13
DO mg/L	6.67 (Feb. 4.31, May. 5.35)	7.87 (Jun.5.56, Sept.7.87)	8.21 (Oct. 6.44, Dec.7.21)
Free CO2 mg/L	34.9 (Apr. 32.6, May.36.8)	65.1 (Sept.54.0, Jun. 60.4)	76.2 (Dec.71.0,Jan. 77.6)
To. Alkalinity mg/L	241 (Feb. 214, Apr. 250)	218.5 (Aug. 215, Jun. 224)	279 (Oct. 239, Jan. 270)
Calcium mg/L	20.43 (Feb.17.0, May. 22.6)	21.43 (Sept.20.2, Aug. 24.0)	23.44 (Oct.20.3, Jan. 24.9)
To. Hardness mg/L	132.5 (Feb. 116, May. 138)	131.2 (Jun. 118, Sept. 144)	158.2 (Jan. 133,Oct. 147)
Chloride mg/L	105.6 (Feb. 103, May. 111)	82.03 (July. 79.2, Jun. 83.5)	87.58 (Oct. 83.2, Jan. 88.4)
PO4 mg/L	2.38 (Feb. 2.2, Apr. 2.46)	3.81 (Jun., 3.24, Aug. 3.84)	2.89 (Jan. 1.96, Nov. 2.28)
SO4 mg/L	46.57 (May. 31.2, Feb. 44.0)	48.63 (May. 41.2, Feb. 48.8)	30.11 (Jan. 27.1, Oct. 30.7)

Note: Values in parentheses indicate min and max for the season

JALNA DISTRICT:
AMBAD RESERVOIR:

Ambad Reservoir (Summer)

13/08/2009 10:45

Ambad Reservoir (Monsoon)

13/12/2009 10:42

Ambad Reservoir (Winter)

Topography of Ambad Reservoir

Village :- Ambad
Taluka :- Ambad
District :- Jalna
Date of project :-
Catchment Area :- 298 Sq.km.
Area of Irrigation :- 5708 hector
Latitude :- 75^0, 42' N
Longitude :- 19^0, 54' E

Meiofauna from Ambad fresh water reservoir during Feb. 2009 to Jan. 2011.

Rotifera	Cladocera	Copepoda	Ostracoda
Branchionus calyciflourus	*Moina macrocopa*	*Heliodiaptomus viduus*	*Hemicypris fossulata*
Branchionus caudatus	*Moina micrura*	*Trpocyclops prasinus*	*Cyclocypris globosa*
Branchionus bidentata	*Diaphanosoma oreintalis*	*Paracyclops fermbrialis*	*Cyclocypris kinkadia*
Keratella trophica	*Diaphanosoma sursi*	*Mesocyclops leuckarti*	*Cypric median*
Trichotria teteractis	*Daphnia longirimis*	*Mesocyclops hyalian*	
Polyarthra major	*Macrothrix rosea*		
Filinia terminalis	*Leydigio acanthocercoids*		
Asplanchna periodontal	*Ceriodaphnia cornuta*		
Lepadella sp.	*Plexares similis*		
Lecane luna			
Philodina			
Trichocerca			

Seasonal average value of Population density of Meiofauna (org/lit) in Ambad Fresh water reservoir during Feb. 2009 to Jan. 2010.

Seasons Zooplankton	Summer (Feb.2009-May2009)	Monsoon (Jun.2009-Sept.2009)	Winter (Oct.2009-Jan.2010)
Rotifera	**37** Min. May (30) Max. Apr. (48)	**38.5** Min. Aug. (28) Max. Jun. (54)	**20** Min. Oct. (18) Max. Jan. (29)
Cladocera	**174** Min. Apr. (202) Max. Feb. (106)	**165** Min. Jun. (186) Max. Sept. (140)	**132.75** Min. Oct. (122) Max. Dec. (144)
Copepoda*	**347** Min. Mar. (330) Max. May (378)	**319.5** Min. Sept. (302) Max. Jun. (336)	**286.25** Min. Oct. (348) Max. Nov. (456)
Ostracoda	**22** Min. Feb. (16) Max. Apr. (40)	**18.5** Min. Sept. (18) Max. July (38)	**15** Min. Jan. (11) Max. Oct. (24)

Note: * Shows the Dominant group.

Seasonal average value of Population density of Meiofauna (org/lit) in Ambad Fresh water reservoir during Feb. 2010 to Jan. 2011.

Seasons Zooplankton	Summer (Feb.2010-May2010)	Monsoon (Jun.2010-Sept.2010)	Winter (Oct.2010-Jan.2011)
Rotifera	**31** Min. May. (21) Max. Apr. (45)	**23.5** Min. Sept. (21) Max. July (26)	**35.75** Min. Oct. (23) Max. Jan. (47)
Cladocera *	**67.75** Min. Feb. (56) Max. Apr. (78)	**87.25** Min. Aug. (78) Max. Jun. (96)	**121.5** Min. Oct. (102) Max. Dec.(39)
Copepoda	**46.5** Min. Apr. (23) Max. May (66)	**32.5** Min July (23) Max. Aug.(43)	**47.25** Min. Jan. (39) Max. Oct. (55)
Ostracoda	**39.5** Min. Mar. (26) Max. May (56)	**32** Min. Jun. (26) Max. Aug. (38)	**40.25** Min. Oct. (36) Max. Jan. (44)

Note: * Shows the Dominant group.

Group Dominance

Ist Year: Copepoda > Cladocera > Rotifera > Ostracoda.

II nd Year: Cladocera > Copepoda > Ostracoda > Rotifera

Species Dominance

Rotifera : *Branchionus calyciflourus > Branchionus caudatus > Branchionus bidentata > Filinia terminalis > Keratella trophica > Lecane luna > Trichotria teteractis > Polyarthra major Asplanchna periodontal > Lepadella sp. > Philodina sp. > Trichocerca*

Cladocera: *Moina micrura > Moina macrocopa > Diaphanosoma sursi > Diaphanosoma oreintalis > Daphnia longirimis > Macrothrix rosea > Ceriodaphnia cornuta > Leydigio acanthocercoids > Plexares similis*

Copepoda: *Trpocyclops prasinus > Paracyclops fermbrialis > Heliodiaptomus viduus > Mesocyclops leuckarti > Mesocyclops hyalian*

Ostracoda : *Hemicypris fossulata > Cyclocypris globosa > Cypric median > Cyclocypris kinkadia*

Seasonal Average values of Physico-Chemical parameter of Ambad Fresh water during Feb. 2009 to Jan. 2010.

Season Parameter	Summer (Feb.2009-May2009)	Monsoon (Jun.2009-Sept.2009)	Winter (Oct.2009-Jan.2010)
Air Temp. (°C)	**24.66** (Feb. 20, Apr. 35.5)	**25.39** (Aug. 26.2, Sept. 29.2)	**21.32** (Jan. 17.2, Oct. 20.9)
Water Temp.(°C)	**21.29** (Feb. 19.0, May,24.2)	**20.63** (Jun. 18.3, Aug. 23.0)	**19.43** (Jan. 17.2, Oct. 20.9)
Transparency (cm)	**15.37** (Feb.13.5, May. 15.9)	**13.35** (Jun. 12.1, Sept. 14.8)	**14.24** (Nov. 13.5,Jan. 15.9)
pH	**7.31** (May. 6.3, Feb. 7.4)	**6.48** (Jun. 6.2, Sept. 7.4)	**7.29** (Jan.5.57, Nov. 7.3)
DO mg/L	**6.32** (Feb. 4.34, May. 5.65	**7.25** (Jun.5.46, Sept.7.67)	**8.56** (Oct. 6.34, Dec.7.31)
Free CO2 mg/L	**37.5** (Apr. 30.6, May.34.8)	**62.8** (Sept.54.0, Jun. 64.4)	**76.2** (Dec.71.0,Jan. 76.6)
To. Alkalinity mg/L	**269.5** (Feb. 214, Apr. 254)	**227.8** (Aug. 213, Jun. 226.5)	**267.5** (Oct. 249, Jan. 277)
Calcium mg/L	**18.13** (Feb.17.0, May. 19.6)	**21.23** (Sept.20.2, Aug. 23.9)	**23.24** (Oct.19.3, Jan. 23.5)
To. Hardness mg/L	**138.5** (Feb. 126, May. 139)	**126.7** (Jun. 119, Sept. 131)	**152.5** (Jan. 143,Oct. 149)
Chloride mg/L	**102** (Feb.103, May.110.2)	**92.03** (July. 79.2, Jun. 82.5)	**105.8** (Oct. 93.2, Jan. 107.6)
Po4 mg/L	**3.88** (Feb. 2.0, Apr. 3.46)	**4.51** (Jun., 2.24, Aug. 4.14)	**3.39** (Jan. 1.96, Nov. 3.38)
So4 mg/L	**42.47** (May. 31.2, Feb.44.9)	**44.43** (Aug. 41.2, Jun. 48.8)	**38.31** (Jan. 29.6, Oct. 37.9)

Note: Values in parentheses indicate min and max for the season

Seasonal Average values of Physico-Chemical parameter of Ambad Fresh water Reservoir during Feb 2010 to Jan 2011.

Season	**Summer**	**Monsoon**	**Winter**
Parameter	**(Feb.2010-May2010)**	**(Jun.2010-Sept.2010)**	**(Oct.2010-Jan.2011)**
Air Temp. (°C)	**24.47** (Feb. 22, May, 25.2)	**25.69** (Jun. 23.3, Aug. 26.0)	**21.22** (Jan. 17.8, Oct. 22.2)
Water Temp.(°C)	**21.49** (Mar. 21.3, Apr. 24.9)	**20.83** (July. 19.6, Sept. 22.1)	**19.93** (Dec. 17.3, Oct. 21.2)
Transparency (cm)	**16.37** (Feb.13.5, May. 15.9)	**14.35** (Jun. 12.1, Sept. 14.8)	**14.44** (Nov. 13.5,Jan. 16.9)
pH	**7.61** (May. 6.3, Feb. 7.1)	**6.68** (Jun. 5.2, Sept. 7.7)	**7.69** (Jan.7.57, Nov. 8.13)
DO mg/L	**5.62** (Feb. 4.31, May. 5.35)	**6.55** (Jun.5.56, Sept.7.87)	**7.26** (Oct. 6.44, Dec.7.21)
Free CO2 mg/L	**39.5** (Apr. 32.6, May.36.8)	**59.8** (Sept.54.0, Jun. 60.4)	**71.2** (Dec.71.0,Jan. 77.6)
To. Alkalinity mg/L	**289.5** (Feb. 214, Apr. 250)	**247.8** (Aug. 215, Jun. 244)	**247.5** (Oct. 239, Jan. 260)
Calcium mg/L	**19.13** (Feb.17.0, May. 20.6)	**20.23** (Sept.19.2, Aug. 24.0)	**22.24** (Oct.20.3, Jan. 24.9)
To. Hardness mg/L	**178.5** (Feb. 156, May. 188)	**156.7** (Jun. 148, Sept. 154)	**182.5** (Jan. 143,Oct. 187)
Chloride mg/L	**132** (Feb. 113, May. 131.2)	**102.03** (July. 89.2, Jun. 103.5)	**125.8** (Oct. 113., Jan.128.4)
Po4 mg/L	3.38 (Feb. 2.2, Apr. 3.46)	4.21 (Jun., 2.84, Aug. 3.84)	**3.19** (Jan. 1.96, Nov. 2.28)
So4 mg/L	**40.47** (May. 31.2, Feb. 44.0)	**42.43** (May. 39.2, Feb. 43.8)	**34.31** (Jan. 27.1, Oct. 30.7)

Note: Values in parentheses indicate min and max for the season

DUDHNA RESERVOIR:

Dudhana Reservoir (Summer)

04/08/2010 14:33

Dudhana Reservoir (Monsoon)

13/12/2009 08:03

Dudhana Reservoir (Winter)

Topography of Dudhana Reservoir

Village :- Somthana
Taluka :- Badnapur
District :- Jalna
River :- Dhudhana river
Date of project :- May 1962
Catchment Area :- 248 Sq.km.
Area of Irrigation :- 5708 hector
Latitude :- 75^0, 42' N
Longitude :- 19^0, 54' E

Meiofauna from Dudhana fresh water reservoir during Feb. 2009 to Jan. 2011.

Rotifera	Cladocera	Copepoda	Ostracoda
Branchionus calyciflourus	*Moina macrocopa*	*Heliodiaptomus viduus*	*Hemicypris fossulata*
Branchionus caudatus	*Moina micrura*	*Trpocyclops prasinus*	*Physocypris ferfuracea*
Branchionus forficula	*Diaphanosoma oreintalis*	*Paracyclops fermbrialis*	*Eucypris biaponsa*
Branchionus angularis	*Diaphanosoma sursi*	*Mesocyclops leuckarti*	*Cyprinottus nuduus*
Branchionus bidentata	*Daphnia longirimis*	*Eodiaptomus japonicus*	*Candona sp.*
Keratella trophica	*Macrothrix rosea*	*Mesocyclops hyalian*	*Cyclocypris globosa*
Trichotria teteractis	*Leydigio acanthocercoids*		*Cyclocypris kinkadia*
Polyarthra major	*Ceriodaphnia cornuta*		*Cypric median*
Filinia terminalis			
Asplanchna periodontal			
Lepadella sp.			
Lecane luna			

Seasonal average value of Population density of Meiofauna (org/lit) in Dudhana Fresh water reservoir during Feb 2009 to Jan 2010.

Seasons **Zooplankton**	**Summer (Feb.2009-May2009)**	**Monsoon (Jun.2009-Sept.2009)**	**Winter (Oct.2009-Jan.2010)**
Rotifera	**27** Min. Mar. (16) Max. May (40)	**24.5** Min. Sept. (18) Max. Jun. (32)	**29** Min. Oct. (16) Max. Nov. (49)
Cladocera	**127** Min. Apr. (120) Max. Feb. (136)	**98** Min. Sept.(74) Max. Jun. (112)	**66.5** Min. Oct. (58) Max. Jan. (77)
Copepoda*	**257** Min. May (202) Max. Mar. (280)	**149.5** Min. Sept. (112) Max. Jun. (180)	**90.75** Min. Dec. (78) Max. Oct. (102)
Ostracoda	**38** Min. Feb. (32) Max. Apr. (44)	**31** Min. Sept. (18) Max. July (40)	**9.5** Min. Jan. (7) Max. Dec. (13)

Note: * Shows the Dominant group.

Seasonal average value of Population density of Meiofauna (org/lit) in Dudhana Fresh water reservoir during Feb 2009 to Jan 2010.

Seasons **Zooplankton**	**Summer (Feb.2009-May2010)**	**Monsoon (Jun.2009-Sept.2010)**	**Winter (Oct.2009-Jan.2010)**
Rotifera*	**127** Min. Feb. (94) Max. May (144)	**107** Min. Aug. (92) Max. Jun. (122)	**73.75** Min. Jan. (63) Max. Oct. (82)
Cladocera	**65.5** Min. May. (60) Max. Mar. (70)	**48** Min. Sept. (40) Max. Jun. (58)	**40** Min. Jan. (32) Max. Dec. (47)
Copepoda	**31.5** Min. Feb. (20) Max. May (42)	**38** Min. Sept. (28) Max. Jun. (54)	**19** Min. Jan. (13) Max. Oct. (24)
Ostracoda	**63.5** Min. Feb. (48) Max. May (78)	**48.5** Min. July (40) Max. Jun. (58)	**36.75** Min. Jan. (29) Max. Nov. (47)

Note: * Shows the Dominant group.

Group Dominance
I st Year: Copepoda > Cladocera > Rotifera > Ostracoda
II nd Year: Rotifera > Cladocera > Ostracoda > Copepoda

Species Dominance
Rotifera : *Branchionus calyciflourus > Branchionus caudatus > Branchionus forficula > Filinia terminalis > Branchionus angularis > Branchionus bidentata > Keratella trophica > Trichotria teteractis > Polyarthra major > Asplanchna periodontal > Lepadella sp. > Lecane luna*
Cladocera: *Moina macrocopa > Moina micrura > Diaphanosoma oreintalis > Diaphanosoma sursi > Daphnia longirimis > Ceriodaphnia cornuta > Leydigio acanthocercoids > Macrothrix rosea*
Copepoda: *Paracyclops fermbrialis > Mesocyclops leuckarti > Heliodiaptomus viduus > Trpocyclops prasinus > Eodiaptomus japonicus > Mesocyclops hyalian*
Ostracoda : *Hemicypris fossulata > Physocypris ferfuracea > Cyclocypris globosa > Cyclocypris kinkadia > Cypric median > Candona sp > Cyprinottus nuduus > Eucypris biaponsa*

Seasonal Average values of Physico-Chemical parameter of Dudhana Fresh water Reservoir during Feb 2009 to Jan 2010.

Season / Parameter	Summer (Feb.2009-May2009)	Monsoon (Jun.2009-Sept.2009)	Winter (Oct.2009-Jan.2010)
Air Temp. (°C)	24.66 (Feb. 20, Apr. 25.5)	25.39 (Aug. 23.2, Sept. 27.2)	21.32 (Jan. 18.2, Oct. 22.9)
Water Temp.(°C)	22.29 (Feb. 19.0, May, 24.5)	23.33 (Jun. 20.3, Aug. 25.0)	19.33 (Jan. 17.9, Oct. 21.2)
Transparency (cm)	14.57 (Feb.13.5, May. 16.9)	12.65 (Jun. 11.1, Sept. 14.8)	13.34 (Nov. 11.5,Jan. 14.9)
pH	7.61 (May. 5.3, Feb. 7.48)	6.28 (Jun. 6.2, Sept. 7.4)	7.49 (Jan.7.57, Nov. 8.3)
DO mg/L	6.47 (Feb. 4.34, May. 5.65)	7.67 (Jun.4.26, Sept.7.67)	8.11 (Oct. 6.34, Dec.8.31)
Free CO2 mg/L	32.9 (Apr. 30.6, May.34.8)	64.1 (Sept.55.0, Jun. 64.4)	75.2 (Dec.71.0,Jan. 76.6)
To. Alkalinity mg/L	239 (Feb. 214, Apr. 224)	216.5 (Aug. 213, Jun. 223.5)	277 (Oct. 249, Jan. 277)
Calcium mg/L	19.43 (Feb.17.0, May. 23.6)	20.43 (Sept.19.2, Aug. 23.9)	22.44 (Oct.19.3, Jan. 23.5)
To. Hardness mg/L	130.5 (Feb. 126, May. 130.8)	129.2 (Jun. 121, Sept. 131)	156.2 (Jan. 146,Oct. 159.5)
Chloride mg/L	103.6 (Feb. 101, May. 107.2)	80.03 (July. 79.2, Jun. 82.5)	85.68 (Oct. 83.4, Jan. 87.5)
Po4 mg/L	2.58 (Feb. 2.0, Apr. 2.46)	3.65 (Jun., 2.24, Aug. 3.34)	2.39 (Jan. 1.96, Nov. 2.38)
So4 mg/L	45.57 (May. 31.4, Feb. 44.6)	47.63 (Aug. 43.2, Jun. 48.8)	33.11 (Jan. 29.1, Oct. 36.7)

Note: Values in parentheses indicate min and max for the season

Seasonal Average values of Physico-Chemical parameter of Dudhana Fresh water Reservoir during Feb 2010 to Jan 2011.

Season Parameter	Summer (Feb.2010-May2010)	Monsoon (Jun.2010-Sept.2010)	Winter (Oct.2010-Jan.2011)
Air Temp. (°C)	24.86 (Feb. 22, May, 25.2)	25.79 (Jun. 23.3, Aug. 26.0)	21.82 (Jan. 17.8, Oct. 22.2)
Water Temp.(°C)	22.19 (Mar. 21.3, Apr. 24.9)	23.73 (July. 21.6, Sept. 24.1)	19.43 (Dec. 18.3, Oct. 22.20
Transparency (cm)	14.67 (Feb.13.5, May. 15.9)	13.25 (Jun. 12.1, Sept. 14.8)	14.34 (Nov. 13.5,Jan. 16.9)
pH	8.61 (May. 7.1, Feb. 8.12)	7.28 (Jun. 6.2, Sept. 8.2)	8.49 (Jan.7.57, Nov. 8.13)
DO mg/L	4.47 (Feb.3.31, May. 5.35)	5.67 (Jun.3.56, Sept.4.87)	6.11 (Oct. 5.44, Dec.6.21)
Free CO2 mg/L	34.9 (Apr. 32.6, May.36.8)	66.1 (Sept.54.0, Jun. 60.4)	77.2 (Dec.71.0,Jan. 77.6)
To. Alkalinity mg/L	237 (Feb. 224, Apr. 240)	214.5 (Aug. 215, Jun. 224)	274 (Oct. 239, Jan. 270)
Calcium mg/L	19.23 (Feb.17.0, May. 20.6)	20.23 (Sept.19.2, Aug. 23.0)	22.24 (Oct.20.3, Jan. 24.9)
To. Hardness mg/L	129.5 (Feb. 116, May. 130)	127.2 (Jun. 118, Sept. 128)	154.2 (Jan. 139,Oct. 147)
Chloride mg/L	105.6 (Feb. 102, May. 109)	82.03 (July. 79.2, Jun. 83.5)	86.58 (Oct. 82.2, Jan. 87.4)
Po4 mg/L	2.48 (Feb. 2.2, Apr. 2.46)	3.71 (Jun., 3.34, Aug. 3.80)	2.89 (Jan. 1.96, Nov. 2.83)
So4 mg/L	45.77 (May. 33.2, Feb. 44.0)	48.93 (May. 41.0, Feb. 47.8)	39.81 (Jan. 29.1, Oct. 38.7)

Note: Values in parentthes indicate min and max for the season

MOTIBAGH RESERVOIR:

Motibagh Reservoir (Summer)

13/08/2009 12:17

Motibagh Reservoir (Monsoon)

13/12/2009 09:55

Motibagh Reservoir (Winter)

Topography of Motibagh Reservoir

Village :- Jalna
Taluka :- Jalna
District :- Jalna
Date of project :- Not Known
Catchment Area :- 248 Sq.km.
Area of Irrigation :- 5708 hector
Latitude :- 19^0, 50’, 29” N
Longitude :- 75^0, 5’,56” E

Meiofauna from Motibagh fresh water reservoir during Feb. 2009 to Jan. 2011.

Rotifera	Cladocera	Copepoda	Ostracoda
Branchionus calyciflourus	*Moina macrocopa*	*Heliodiaptomus viduus*	*Hemicypris fossulata*
Branchionus caudatus	*Moina micrura*	*Paracyclops fermbrialis*	*Cypric median*
Branchionus forficula	*Diaphanosoma oreintalis*	*Mesocyclops leuckarti*	*Physocypris ferfuracea*
Branchionus bidentata	*Macrothrix rosea*	*Eodiaptomus japonicus*	*Eucypris biaponsa*
Keratella trophica	*Leydigio acanthocercoids*	*Mesocyclops hyalian*	*Cyprinottus nuduus*
Trichotria teteractis	*Ceriodaphnia cornuta*		
Polyarthra major	*Chydorous spharicus*		
Filinia terminalis			
Asplanchna periodontal			
Lepadella sp.			
Lecane luna			
Philodina			
Trichocerca			

Seasonal average value of Population density of Meiofauna (org/lit) in Motibagh Fresh water reservoir during Feb 2009 to Jan 2009.

Seasons / Zooplankton	Summer (Feb.2009-May2009)	Monsoon (Jun.2009-Sept.2009)	Winter (Oct.2009-Jan.2010)
Rotifera	**27.5** Min. Mar. (18) Max. Apr. (36)	**30** Min. Aug. (18) Max. Sept. (40)	**36.25** Min. Jan. (28) Max. Nov. (42)
Cladocera	**95.5** Min. Feb. (80) Max. May (106)	**85.5** Min. Sept. (74) Max. Jun. (98)	**74** Min. Oct. (68) Max. Jan. (83)
Copepoda*	**256** Min. May (240) Max. Mar. (266)	**228** Min. Sept. (202) Max. Jun. (246)	**194.75** Min. Dec. (188) Max. Nov. (201)
Ostracoda	**27** Min. Feb.(20) Max. May (34)	**20** Min. July (12) Max. Jun. (36)	**18.25** Min. Jan. (13) Max. Oct. (22)

Note: * Shows the Dominant group.

Seasonal average value of Population density of Meiofauna (org/lit) in Motibagh Fresh water reservoir during Feb 2010 to Jan 2011.

Seasons / Zooplankton	Summer (Feb.2010-May2010)	Monsoon (Jun.2010-Sept.2010)	Winter (Oct.2010-Jan.2011)
Rotifera	**22** Min. Feb. (16) Max. Apr. (40)	**18.5** Min. Sept. (18) Max. July (38)	**15** Min. Jan. (11) Max. Oct. (24)
Cladocera*	**347** Min. Mar. (330) Max. May (378)	**319.5** Min. Sept. (302) Max. Jun. (336)	**286.25** Min. Oct. (348) Max. Nov. (456)
Copepoda	**174** Min. Apr. (202) Max. Feb. (106)	**165** Min. Jun. (186) Max. Sept. (140)	**132.75** Min. Oct. (122) Max. Dec. (144)
Ostracoda	**37** Min. May (30) Max. Apr. (48)	**38.5** Min. Aug. (28) Max. Jun. (54)	**20** Min. Oct. (18) Max. Jan. (29)

Note: * Shows the Dominant group.

Group Dominance

I st Year: Copepoda > Cladocera > Rotifera > Ostracoda
II nd Year: Cladocera > Copepoda > Ostracoda > Rotifera

Species Dominance

Rotifera : *Branchionus calyciflourus* > *Branchionus caudatus* > *Branchionus forficula* > *Branchionus bidentata* > *Keratella trophica* > *Trichotria teteractis* > *Polyarthra major* > *Filinia terminalis* > *Asplanchna periodontal* > *Lepadella sp.* > *Lecane luna* > *Philodina Trichocerca*
Cladocera: *Moina macrocopa* > *Moina micrura* > *Diaphanosoma oreintalis* > *Macrothrix rosea* > *Leydigio acanthocercoids* > *Ceriodaphnia cornuta* > *Chydorous spharicus*
Copepoda: *Heliodiaptomus viduus* > *Paracyclops fermbrialis* > *Mesocyclops leuckarti* > *Eodiaptomus japonicus* > *Mesocyclops hyalian*
Ostracoda : *Hemicypris fossulata* > *Physocypris ferfuracea* > *Cypric median* > *Cyprinottus nuduus* > *Eucypris biaponsa*

Seasonal Average values of Physico-Chemical parameter of Motibagh Fresh water Reservoir during Feb 2009 to Jan 2010.

Season / Parameter	Summer (Feb.2009-May2009)	Monsoon (Jun.2009-Sept.2009)	Winter (Oct.2009-Jan.2010)
Air Temp. (°C)	24.66 (Feb. 20, Apr. 35.5)	25.39 (Aug. 21.2, Sept. 29.2)	21.32 (Jan. 17.2, Oct. 24.9)
Water Temp.(°C)	21.29 (Feb. 20.0, May, 24.2)	20.63 (Jun. 20.3, Aug. 23.0)	19.43 (Jan. 17.8, Oct. 22.2)
Transparency (cm)	15.37 (Feb.13.5, May. 15.9)	13.35 (Jun. 12.1, Sept. 14.8)	14.24 (Nov. 13.5,Jan. 16.9)
pH	7.61 (May. 6.3, Feb. 7.4)	6.58 (Jun. 6.2, Sept. 7.4)	7.89 (Jan.7.57, Nov. 8.3)
DO mg/L	6.37 (Feb. 4.34, May. 5.65)	7.27 (Jun.5.46, Sept.7.67)	8.36 (Oct. 6.34, Dec.8.31)
Free CO2 mg/L	37.9 (Apr. 30.6, May.39.8)	62.1 (Sept.54.0, Jun. 64.4)	77.2 (Dec.71.0,Jan. 79.6)
To. Alkalinity mg/L	269 (Feb. 214, Apr. 224)	227 (Aug. 213, Jun. 229.5)	267 (Oct. 249, Jan. 277)
Calcium mg/L	19.13 (Feb.17.0, May. 24.6)	20.23 (Sept.20.2, Aug. 23.9)	22.34 (Oct.19.3, Jan. 23.5)
To. Hardness mg/L	138.5 (Feb. 116, May. 139)	126.7 (Jun. 119, Sept. 141)	157 (Jan. 143,Oct. 149.5)
Chloride mg/L	109 (Feb. 103, May. 110.2)	94.03 (July. 79.2, Jun. 94.5)	107.8 (Oct. 83.2, Jan. 107.6)
PO4 mg/L	3.28 (Feb. 2.0, Apr. 3.46)	4.31 (Jun., 3.24, Aug. 4.54)	3.59 (Jan. 1.96, Nov. 3.78)
SO4 mg/L	42.17 (May. 31.2, Feb. 44.9)	44.23 (Aug. 41.2, Jun. 48.8)	38.61 (Jan. 29.1, Oct. 39.7)

Note: Values in parentheses indicate min and max for the season

Seasonal Average values of Physico-Chemical parameter of Motibagh Fresh water Reservoir during Feb 2010 to Jan 2011.

Season / Parameter	Summer (Feb.2010-May2010)	Monsoon (Jun.2010-Sept.2010)	Winter (Oct.2010-Jan.2011)
Air Temp. (°C)	24.66 (Feb. 22, May, 25.2)	25.39 (Jun. 23.3, Aug. 26.0)	21.32 (Jan. 17.8, Oct. 22.2)
Water Temp.(°C)	21.29 (Mar. 21.3, Apr. 24.9)	20.63 (July. 21.6, Sept. 24.1)	19.43 (Dec. 19.3, Oct. 22.20
Transparency (cm)	15.37 (Feb.13.5, May. 15.9)	13.35 (Jun. 12.1, Sept. 14.8)	14.24 (Nov. 13.5,Jan. 16.9)
pH	7.61 (May. 6.3, Feb. 7.1)	6.58 (Jun. 6.2, Sept. 7.7)	7.89 (Jan.7.57, Nov. 8.13)
DO mg/L	6.37 (Feb. 4.31, May. 5.35)	7.27 (Jun.5.56, Sept.7.87)	8.36 (Oct. 6.44, Dec.8.41)
Free CO2 mg/L	37.9 (Apr. 32.6, May.38.8)	62.1 (Sept.54.0, Jun. 63.4)	77.2 (Dec.71.0,Jan. 77.6)
To. Alkalinity mg/L	269 (Feb. 214, Apr. 290)	227 (Aug. 215, Jun. 228)	267 (Oct. 239, Jan. 270)
Calcium mg/L	19.13 (Feb.17.0, May. 22.6)	20.23 (Sept.20.2, Aug. 24.0)	22.34 (Oct.20.3, Jan. 24.9)
To. Hardness mg/L	138.5 (Feb. 116, May. 139)	126.7 (Jun. 118, Sept. 144)	157 (Jan. 133,Oct. 147)
Chloride mg/L	109 (Feb. 103, May. 111)	94.03 (July. 79.2, Jun. 98.5)	107.8 (Oct. 83.2, Jan. 108.4)
PO4 mg/L	3.28 (Feb. 2.2, Apr. 3.46)	4.31 (Jun., 3.24, Aug. 4.84)	3.59 (Jan. 1.96, Nov. 3.68)
SO4 mg/L	42.17 (May. 31.2, Feb. 44.0)	44.23 (May. 41.2, Feb. 48.8)	38.61 (Jan. 27.1, Oct. 42.7)

Note: Values in parentthes indicate min and max for the season

DHANGAR PIMPRI RESERVOIR:

17/02/2010 00:00

Dhangar Pimpri (Summer)

18/10/2010 12:33

Dhangar Pimpri (Winter)

Dhangar Pimpri (Monsoon)

Topography of Dhangar Pimpri Reservoir

Village :- Ambad
Taluka :- Ambad
District :- Jalna
Date of project :- 1970
Catchment Area :- 298 Sq.km.
Area of Irrigation :- 5708 hector
Latitude :- 75^0, 42' N
Longitude :- 19^0, 54' E

Meiofauna from Dhangar Pimpri fresh water reservoir during Feb. 2009 to Jan. 2011.

Rotifera	Cladocera	Copepoda	Ostracoda
Branchionus calyciflourus	*Moina macrocopa*	*Heliodiaptomus viduus*	*Hemicypris fossulata*
Branchionus caudatus	*Moina micrura*	*Trpocyclops prasinus*	*Cyclocypris globosa*
Branchionus forficula	*Diaphanosoma oreintalis*	*Paracyclops fermbrialis*	*Cyclocypris kinkadia*
Branchionus angularis	*Diaphanosoma sursi*	*Mesocyclops leuckarti*	*Cypric median*
Branchionus bidentata	*Daphnia longirimis*	*Eodiaptomus japonicus*	*Physocypris ferfuracea*
Keratella trophica	*Macrothrix rosea*	*Mesocyclops hyalian*	*Eucypris biaponsa*
Trichotria teteractis	*Leydigio acanthocercoids*		*Cyprinottus nuduus*
Polyarthra major	*Ceriodaphnia cornuta*		*Candona sp.*
Filinia terminalis	*Chydorous spharicus*		
Asplanchna periodontal	*Plexares similis*		
Lepadella sp.			
Lecane luna			
Philodina			
Trichocerca			

Seasonal average value of Population density of Meiofauna (org/lit) in Dhangar Pimpri Fresh water reservoir during Feb 2009 to Jan 2010.

Seasons **Zooplankton**	**Summer** **(Feb.2009-May2009)**	**Monsoon** **(Jun.2009-Sept.2009)**	**Winter** **(Oct.2009-Jan.2010)**
Rotifera	**63.25** Min. May (34) Max. Feb. (78)	**47.25** Min. Sept. (32) Max. Jun. (55)	**56.75** Min. Nov. (47) Max. Jan. (70)
Cladocera	**35.25** Min. Feb. (23) Max. May (47)	**74.25** Min. Sept. (65) Max. July (89)	**20.5** Min. Jan. (16) Max. Dec. (26)
Copepoda*	**92.5** Min. Mar. (71) Max. Apr. (109)	**67.75** Min. July (59) Max. Sept. (78)	**34.75** Min. Jan. (22) Max. Oct. (45)
Ostracoda	**38.75** Min. Mar. (23) Max. May (51)	**70.5** Min. Jun. (65) Max. Sept. (77)	**91.25** Min. Dec. (101) Max. Jan. (77)

Note: * Shows the Dominant group.

Seasonal average value of Population density of Meiofauna (org/lit) in Dhangar Pimpri Fresh water reservoir during Feb 2010 to Jan 2011.

Seasons **Zooplankton**	**Summer** **(Feb.2010-May2010)**	**Monsoon** **(Jun.2010-Sept.2010)**	**Winter** **(Oct.2010-Jan.2011)**
Rotifera	**174** Min. Apr. (202) Max. Feb. (106)	**165** Min. Jun. (186) Max. Sept. (140)	**132.75** Min. Oct. (122) Max. Dec. (144)
Cladocera	**22** Min. Feb. (16) Max. Apr. (40)	**18.5** Min. Sept. (18) Max. July (38)	**15** Min. Jan. (11) Max. Oct. (24)
Copepoda*	**347** Min. Mar. (330) Max. May (378)	**319.5** Min. Sept. (302) Max. Jun. (336)	**286.25** Min. Oct. (348) Max. Nov. (456)
Ostracoda	**37** Min. May (30) Max. Apr. (48)	**38.5** Min. Aug. (28) Max. Jun. (54)	**20** Min. Oct. (18) Max. Jan. (29)

Note: * Shows the Dominant group.

Group Dominance
I st Year: Copepoda > Rotifer > Ostracoda > Cladocera
II nd Year: Copepoda > Rotifera > Cladocera > Ostracoda.

Species Dominance

Rotifera : *Branchionus calyciflourus > Branchionus caudatus > Branchionus forficula > Branchionus angularis > Branchionus bidentata > Keratella trophica > Trichotria teteractis > Polyarthra major > Filinia terminalis > Asplanchna periodontal > Lecane luna > Lepadella sp. > Philodina > Trichocerca*

Cladocera: *Moina micrura > Moina macrocopa > Daphnia longirimis > Diaphanosoma* oreintalis *> Diaphanosoma sursi > Macrothrix rosea > Leydigio acanthocercoids > Ceriodaphnia cornuta > Chydorous sphariсus > Plexares similis*

Copepoda: *Heliodiaptomus viduus > Trpocyclops prasinus > Paracyclops fermbrialis > Mesocyclops leuckarti > Eodiaptomus japonicus > Mesocyclops hyalian*

Ostracoda : *Hemicypris fossulata > Cypric median > Physocypris ferfuracea > Cyclocypris globosa > Cyclocypris kinkadia > Candona sp. > Cyprinottus nuduus > Eucypris biaponsa*

Seasonal Average values of Physico-Chemical parameter of Dhangar Pimpri Fresh water Reservoir during Feb 2009 to Jan 2010.

Season / Parameter	Summer (Feb.2009-May2009)	Monsoon (Jun.2009-Sept.2009)	Winter (Oct.2009-Jan.2010)
Air Temp. (°C)	27.11 (Feb. 24.2, May. 26.6)	25.34 (Sept. 21.3, July. 26.1)	20.59 (Dec. 20.3, Oct. 24.2)
Water Temp.(°C)	24.79 (Feb. 23.1, May. 27.7)	21.18 (Sept. 23.1, July. 25.7)	19.78 (Dec. 19.5, Oct. 23.1)
Transparency (cm)	14.18 (Feb. 13.8, Apr. 15.4)	16.80 (Sept. 10.5, Jun. 13.8)	17.12 (Jan. 13.4, Nov. 15.1)
pH	6.87 (Mar. 6.7, May. 7.6)	5.84 (July. 7.5, Sept. 8.11)	6.15 (Dec. 7.7, Oct. 8.3)
DO mg/L	5.46 (Feb. 5.18, May. 6.16)	7.51 (Jun. 6.72, Sept. 7.42)	7.32 (Jan. 7.7, Nov. 8.12)
Free CO_2 mg/L	73.05 (Feb. 17.6, May. 44)	45.38 (Jun. 52.8, Sept. 83.6)	24.9 (Jan. 52.8, Oct. 96.8)
To. Alkalinity mg/L	215.3 (Mar. 236, May.260)	117.5 (July. 212, Sept. 248)	162.8 (Oct. 264, Jan. 312)
Calcium mg/L	51.57 (May. 17.6, Feb. 21,6)	32.49 (Jun. 19.2, Aug. 21.6)	42.37 (Oct. 23.4, Dec. 26.4)
To. Hardness mg/L	179.7 (Feb. 139, May. 146)	154.2 (Jun. 129, Sept. 158)	164.8 (Jan. 138, Oct. 159)
Chloride mg/L	65.48 (Mar. 105, May. 113)	35.24 (Sept. 69.5, Jun. 107)	55.18 (Oct. 69.9, Jan. 109.3)
Po4 mg/L	3.79 (May. 2.0, Apr. 2.34)	4.84 (Sept. 3.68, Jun. 3.98)	2.93 (Jan.1.54, Oct. 2.3)
So4 mg/L	44.77 (Feb. 53.4, May. 60.0)	31.48 (Sept. 54.3, Jun. 62.5)	26.49 (Jan. 33.7, Oct. 46.9)

Note: Values in parentheses indicate min and max for the season

Seasonal Average values of Physico-Chemical parameter of Dhangar Pimpri Fresh water Reservoir during Feb 2010 to Jan 2011.

Season Parameter	Summer (Feb.2010-May2010)	Monsoon (Jun.2010-Sept.2010)	Winter (Oct.2010-Jan.2011)
Air Temp. (°C)	28.61 (Feb. 23.3, May. 25.4)	26.44 (May. 23.4, Feb. 26.7)	22.89 (Dec. 20.9, Oct. 23.6)
Water Temp.(°C)	23.79 (Feb. 24.3, May. 27.4)	22.20 (May. 21.4, Feb. 25.7)	19.48 (Dec. 19.9, Oct. 21.6)
Transparency (cm)	15.18 (Mar. 12.3, May. 14.5)	15.86 (Aug. 10.5, Jun. 12.5)	18.52 (Oct. 13.4, Nov. 14.8)
pH	6.47 (Apr. 6.7, Mar. 6.9)	5.24 (Jun. 6.3, Sept. 7.4)	6.35 (Jan. 6.9, Dec. 7.11)
DO mg/L	5.26 (Feb. 6.0, May. 7.0)	7.21 (Jun. 7.28, Sept. 8.26)	7.32 (Jan. 6.86, Oct. 8.68)
Free CO2 mg/L	73.15 (Feb. 26.4, May. 48.4)	45.28 (Jun. 57.2, Sept. 88.0)	24.29 (Jan. 48.4, Oct.101.2)
To. Alkalinity mg/L	214.3 (Mar. 244, May. 268)	118.5 (Aug. 216, Sept. 230)	165.8 (Dec 224, Jan. 250)
Calcium mg/L	49.57 (Apr. 18.8, Feb. 20.0)	31.49 (Jun. 17.9, Aug. 22.4)	40.37 (Jan. 20.8, Dec. 25.6)
To. Hardness mg/L	169.7 (Feb 132, Mar. 146)	144.2 (Aug. 122, Sept. 152)	154.8 (Jan. 130, Oct. 154)
Chloride mg/L	64.48 (Feb. 105, May. 116)	34.24 (Sept. 69.5, Jun. 107)	54.18 (Oct. 71, Jan. 107.9)
Po4 mg/L	3.99 (Mar. 2.3, May. 2.19)	4.34 (Jun. 3.04, Sept. 3.64)	2.53 (Oct. 1.18, Jan. 2.1)
So4 mg/L	42.77 (Feb. 51.8, May. 59.2)	29.48 (Sept.55.1, Jun. 61.7)	24.49 (Jan. 32.9, Oct. 47.7)

Note: Values in parentheses indicate min and max for the season

GHANEWADI RESERVOIR:

18/10/2010 11:27

Ghanewadi Reservoir (Winter)

Ghanewadi Reservoir (Monsoon)

Ghanewadi Reservoir (Summer)

Topography of Ghanewadi Reservoir

Village :-
Taluka : - Jalna
District :- Jalna
Date of project :- 1964
Length (meter) :- 790 meter
Height (meter) :- 14.87 meter
Catchment Area :- 42 Sq. km.
Latitude :- 74^0 40’ 15” N
Longitude :- 20^0 03’ 20” E

Meiofauna from Ghanewadi fresh water reservoir during Feb. 2009 to Jan. 2011.

Rotifera	Cladocera	Copepoda	Ostracoda
Branchionus calyciflourus	*Moina macrocopa*	*Heliodiaptomus viduus*	*Hemicypris fossulata*
Branchionus caudatus	*Moina micrura*	*Trpocyclops prasinus*	*Cyclocypris globosa*
Branchionus forficula	*Diaphanosoma oreintalis*	*Paracyclops fermbrialis*	*Cyclocypris kinkadia*
Branchionus angularis	*Diaphanosoma sursi*	*Mesocyclops leuckarti*	*Cypric median*
Branchionus bidentata	*Macrothrix rosea*	*Eodiaptomus japonicus*	*Physocypris ferfuracea*
Polyarthra major	*Leydigio acanthocercoids*		*Eucypris biaponsa*
Filinia terminalis	*Ceriodaphnia cornuta*		*Cyprinottus nuduus*
Asplanchna periodontal	*Plexares similis*		*Candona sp.*
Lepadella sp.			
Lecane luna			
Philodina			
Trichocerca			

Seasonal average value of Population density of Meiofauna (org/lit) in Ghanewadi Fresh water reservoir during Feb 2009 to Jan 2010.

Seasons Zooplankton	Summer (Feb.2009-May2009)	Monsoon (Jun.2009-Sept.2009)	Winter (Oct.2009-Jan.2010)
Rotifera	**63.5** Min. Feb. (48) Max. May (78)	**48.5** Min. July (40) Max. Jun. (58)	**36.75** Min. Jan. (29) Max. Nov. (47)
Cladocera	**65.5** Min. May. (60) Max. Mar. (70)	**48** Min. Sept. (40) Max. Jun. (58)	**40** Min. Jan. (32) Max. Dec. (47)
Copepoda*	**127** Min. Feb. (94) Max. May (144)	**107** Min. Aug. (92) Max. Jun. (122)	**73.75** Min. Jan. (63) Max. Oct. (82)
Ostracoda	**31.5** Min. Feb. (20) Max. May (42)	**38** Min. Sept. (28) Max. Jun. (54)	**19** Min. Jan. (13) Max. Oct. (24)

Note: * Shows the Dominant group.

Seasonal average value of Population density of Meiofauna (org/lit) in Ghanewadi Fresh water reservoir during Feb 2010 to Jan 2011.

Seasons Zooplankton	Summer (Feb.2010-May2010)	Monsoon (Jun.2010-Sept.2010)	Winter (Oct.2010-Jan.2011)
Rotifera*	**256** Min. May (240) Max. Mar. (266)	**228** Min. Sept. (202) Max. Jun. (246)	**194.75** Min. Dec. (188) Max. Nov. (201)
Cladocera	**27** Min. Feb.(20) Max. May (34)	**20** Min. July (12) Max. Jun. (36)	**18.25** Min. Jan. (13) Max. Oct. (22)
Copepoda	**95.5** Min. Feb. (80) Max. May (106)	**85.5** Min. Sept. (74) Max. Jun. (98)	**74** Min. Oct. (68) Max. Jan. (83)
Ostracoda	**27.5** Min. Mar. (18) Max. Apr. (36)	**30** Min. Aug. (18) Max. Sept. (40)	**36.25** Min. Jan. (28) Max. Nov. (42)

Note: * Shows the Dominant group.

Group Dominance

I st Year: Copepoda > Cladocera > Rotifera > Ostracoda
II nd Year: Rotifera > Copepoda > Ostracoda > Cladocera

Species Dominance

Rotifera : *Branchionus calyciflourus > Branchionus caudatus > Branchionus forficula > Filinia terminalis > Branchionus angularis > Branchionus bidentata > Polyarthra major > Lecane luna Asplanchna periodontal > Lepadella sp. > Philodina > Trichocerca sp.*
Cladocera: *Moina micrura > Moina macrocopa > Diaphanosoma oreintalis > Diaphanosoma sursi > Ceriodaphnia cornuta > Plexares similis > Leydigio acanthocercoids > Macrothrix rosea*
Copepoda: *Paracyclops fermbrialis > Heliodiaptomus viduus > Trpocyclops prasinus Mesocyclops leuckarti > Eodiaptomus japonicus*
Ostracoda : *Hemicypris fossulata > Cyclocypris globosa > Cyclocypris kinkadia > Cypric median > Physocypris ferfuracea > Cyprinottus nuduus > Candona sp.* **>** *Eucypris biaponsa*

Seasonal Average values of Physico-Chemical parameter of Ghanewadi Fresh water Reservoir during Feb 2009 to Jan 2010.

Season Parameter	Summer (Feb.2009-May2009)	Monsoon (Jun.2009-Sept.2009)	Winter (Oct.2009-Jan.2010)
Air Temp. (°C)	24.66 (Jan22.1 May 26.8)	25.39 (Aug. 22.1, Sep. 26.3)	21.32 (Nov. 19.3, Jan.24.2)
Water Temp.(°C)	23.29 (Mar. 17.4,May 24.5)	22.63 (Sept.22.8, Jun. 26.4)	20.43 (Dec. 14.6, Oct. 25.5)
Transparency (cm)	14.47 (Feb.12.5, Apr. 15.9)	12.55 (Sept. 10.5, Jun. 15.1)	13.14 (Oct. 11.8, Jan. 15.1)
pH	7.51 (Mar. 6.5, May. 7.8)	6.38 (Aug. 5.7, Jun. 7.8)	7.59 (Dec. 6.4, Nov. 7.87)
DO mg/L	6.87 (Feb.3.2, May.5.5)	7.57 (Jun. 5.5, Sept. 7.7)	8.16 (Oct. 6.7, Aug.8.1)
Free CO2 mg/L	31.9 (May.21.6, Feb. 33.4)	61.1 (Jun. 35.5, Sept. 62.4)	72.2 (Oct. 43.7, Aug.78.1)
To. Alkalinity mg/L	240 (Feb. 230, May.255)	219.5 (Jun. 187, Sept. 220)	267 (Oct.239, Jan.270)
Calcium mg/L	19.23 (Mar.18.5, May 23.7)	20.53 (Sept. 19.7, Aug. 31.0)	22.24 (Oct.20.1, Jan. 32.1)
To. Hardness mg/L	133.5 (Feb. 123.6 May 144)	127.2 (Sept. 120, Aug. 146)	154.2 (Oct. 147, Jan. 168)
Chloride mg/L	106.6 (Feb.61, May 102)	85.03 (Jun. 34.9, Aug.81)	89.58 (Oct. 46.6, Jan. 79.6)
Po4 mg/L	2.48 (Apr. 2.16, May. 3)	3.51 (Aug. 3.28, July.3.64)	2.79 (Nov. 2.09, Dec. 2.64)
So4 mg/L	43.17 (Feb. 35.3, May. 43.6)	46.23 (Sept. 31.2, Jul. 56.9)	31.61 (Jan. 21.5, Oct. 40.5)

Note: Values in parentheses indicate min and max for the season

Seasonal Average values of Physico-Chemical parameter of Ghanewadi Fresh water Reservoir during Feb 2010 to Jan 2011.

Season Parameter	Summer (Feb.2010-May2010)	Monsoon (Jun.2010-Sept.2010)	Winter (Oct.2010-Jan.2011)
Air Temp. (°C)	24.66 (Feb. 22.1, May. 24.7)	25.39 (Aug. 23.3, Sep. 27.9)	21.32 (Nov. 19.6, Jan. 23.0)
Water Temp.(°C)	23.29 (Mar.22.3, May.26.7)	22.63 (Sept. 17.9, Jun. 24.7)	20.43 (Dec. 14.6, Oct.23.7)
Transparency (cm)	14.37 (Feb.12.6, May. 16.9)	12.35 (Sept. 12.1, July. 15.6)	13.24 (Nov. 12.1, Jan. 15.1)
pH	7.31 (Mar. 7.05, May. 8.03)	6.28 (Aug.6.1, Sept. 7.7)	7.49 (Jan. 6.08, Nov. 7.35)
DO mg/L	6.67 (Apr. 5.02, Feb. 6.08)	7.47 (Jun.5.78, Sept.7.28)	8.46 (Jan. 7.19, Oct. 7.63)
Free CO2 mg/L	30.9 (May. 25, Mar. 34.2)	59.1 (Sept. 29.1, Jun. 50.6)	70.2 (Dec. 29.8, Jan. 71.9)
To. Alkalinity mg/L	239 (Feb. 213, May. 348)	217 (Jul. 195, Sept. 239)	257 (Oct. 223, Jan. 261)
Calcium mg/L	19.63 (Mar. 18.5, Apr. 23.9)	20.43 (July. 11.2, Aug. 25.6)	22.64 (Nov. 15.0, Jan. 24.0)
To. Hardness mg/L	134.5 (Feb. 121, May. 149)	124.2 (Aug.116, Jun. 133)	153.2 (Jan. 120, Nov. 156)
Chloride mg/L	104.6 (Feb. 86, May. 109)	84.03 (Sept. 70, Jun. 95.5)	87.58 (Oct.65, Jan. 88.4)
Po4 mg/L	2.28 (Feb. 2.18, Apr. 2.34)	3.31 (Jun. 3.18, Aug. 3.78)	2.59 (Jan. 1.98, Nov. 2.51)
So4 mg/L	45.17 (May. 26.3, Feb. 43.7)	48.23 (Sept. 37.2, Jun. 54.6)	34.61 (Jan. 27.4, Oct. 44.8)

Note: Values in parentheses indicate min and max for the season

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MAJALGAON RESERVOIR:

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Majalgaon Reservoir (Monsoon)

Majalgaon Reservoir (Summer)

Topography of Majalgaon Reservoir

Village :- Majalgaon
Taluka :- Beed
District :- Beed
Date of project :- 1970
Area of Irrigation :- 1190 km².
Latitude :- 19º 7' 54" **N**
Longitude :- 76º 7' 11" **E/**

Meiofauna from Majalgaon fresh water reservoir during Feb. 2009 to Jan. 2011.

Rotifera	Cladocera	Copepoda	Ostracoda
Branchionus calyciflourus	*Moina macrocopa*	*Heliodiaptomus viduus*	*Hemicypris fossulata*
Branchionus angularis	*Moina micrura*	*Trpocyclops prasinus*	*Cypric median*
Branchionus bidentata	*Moina branchiata*	*Paracyclops fermbrialis*	*Physocypris ferfuracea*
Keratella trophica	*Diaphanosoma oreintalis*	*Mesocyclops leuckarti*	*Eucypris biaponsa*
Trichotria teteractis	*Diaphanosoma sursi*	*Mesocyclops hyalian*	*Cyprinottus nuduus*
Polyarthra major	*Daphnia longirimis*	*Eodiaptomus japonicus*	*Candona sp.*
Filinia terminalis	*Macrothrix rosea*		
Asplanchna periodontal	*Leydigio acanthocercoids*		
Lepadella sp.	*Ceriodaphnia cornuta*		
Lecane luna			
Philodina			
Trichocerca			

Seasonal average value of Population density of Meiofauna (org/lit) in Majalgaon Fresh water reservoir during Feb 2009 to Jan 2010.

Seasons **Zooplankton**	**Summer** **(Feb.2009-May2009)**	**Monsoon** **(Jun.2009-Sept.2009)**	**Winter** **(Oct.2009-Jan.2010)**
Rotifera	**46.5** Min. Apr. (23) Max. May (66)	**32.5** Min July (23) Max. Aug.(43)	**47.25** Min. Jan. (39) Max. Oct. (55)
Cladocera	**39.5** Min. Mar. (26) Max. May (56)	**32** Min. Jun. (26) Max. Aug. (38)	**40.25** Min. Oct. (36) Max. Jan. (44)
Copepoda	**31** Min. May. (21) Max. Apr. (45)	**23.5** Min. Sept. (21) Max. July (26)	**35.75** Min. Oct. (23) Max. Jan. (47)
Ostracoda*	**67.75** Min. Feb. (56) Max. Apr. (78)	**87.25** Min. Aug. (78) Max. Jun. (96)	**121.5** Min. Oct. (102) Max. Dec.(39)

Note: * Shows the Dominant group.

Seasonal average value of Population density of Meiofauna (org/lit) in Majalgaon Fresh water reservoir during Feb 2010 to Jan 2011.

Seasons **Zooplankton**	**Summer** **(Feb.2010-May2010)**	**Monsoon** **(Jun.2010-Sept.2010)**	**Winter** **(Oct.2010-Jan.2011)**
Rotifera*	**257** Min. May (202) Max. Mar. (280)	**149.5** Min. Sept. (112) Max. Jun. (180)	**90.75** Min. Dec. (78) Max. Oct. (102)
Cladocera	**38** Min. Feb. (32) Max. Apr. (44)	**31** Min. Sept. (18) Max. July (40)	**9.5** Min. Jan. (7) Max. Dec. (13)
Copepoda	**127** Min. Apr. (120) Max. Feb. (136)	**98** Min. Sept.(74) Max. Jun. (112)	**66.5** Min. Oct. (58) Max. Jan. (77)
Ostracoda	**27** Min. Mar. (16) Max. May (40)	**24.5** Min. Sept. (18) Max. Jun. (32)	**29** Min. Oct. (16) Max. Nov. (49)

Note: * Shows the Dominant group.

Group Dominance
I st Year: Ostracoda > Rotifera > Cladocera > Copepoda.
II nd Year: Rotifera > Copepoda > Cladocera > Ostracoda.

Species Dominance

Rotifera : *Branchionus calyciflourus > Branchionus caudatus > Branchionus angularis > Branchionus bidentata > Keratella trophica > Trichotria teteractis > Polyarthra major > Filinia terminalis > Asplanchna periodontal > Lecane luna > Trichocerca sp. > Lepadella sp. > Philodina sp.*

Cladocera: *Moina macrocopa > Moina micrura > Moina branchiata > Diaphanosoma oreintalis > Diaphanosoma sursi > Daphnia longirimis > Macrothrix rosea > Leydigio acanthocercoids > Ceriodaphnia cornuta.*

Copepoda: *Heliodiaptomus viduus > Trpocyclops prasinus > Paracyclops fermbrialis > Mesocyclops leukarti > Mesocyclops hyalian > Eodiaptomus japanicus*

Ostracoda : *Hemicypris fossulata > Cypric median > Physocypris ferfuracea > Eucypris biaponsa > Cyprinottus nuduus > Candona sp*

Seasonal Average values of Physico-Chemical parameter of Majalgaon Fresh water Reservoir during Feb 2009 to Jan 2010.

Season / Parameter	Summer (Feb.2009-May2009)	Monsoon (Jun.2009-Sept.2009)	Winter (Oct.2009-Jan.2010)
Air Temp. (°C)	**29.11** (Jan26.1 May 30.8)	**27.34** (Aug. 25.1, Sep. 28.3)	**21.59** (Nov. 19.3, Jan.23.2)
Water Temp.(°C)	**26.79** (May. 24.3, Mar. 28.1)	**23.18** (July. 19.7, Sept.24.8)	**20.78** (Dec.17.2, Oct. 23.6)
Transparency (cm)	**16.18** (Apr. 13.6, Feb. 16.9)	**14.80** (Jun. 13.1, Sept. 15.8)	**15.12** (Nov. 14.5, Jan. 16.3).
pH	**7.87** (May. 6.3, Feb. 7.9)	**6.84** (Jun. 6.2, Sept. 7.7)	**7.15** (Jan.7.57, Nov. 8.13)
DO mg/L	**5.76** (Feb. 3.31, May. 5.35)	**7.21** (Jun.5.56, Sept.6.87)	**7.92** (Oct. 7.44, Dec.8.21)
Free CO2 mg/L	**70.05** (Apr. 68.6, May.85.8)	**41.38** (Sept.33.0, Jun. 60.4)	**20.9** (Dec.11.0,Jan. 39.6)
To. Alkalinity mg/L	**217.3** (Feb. 214, Apr. 280)	**119.5** (Aug. 115, Jun. 244)	**164.8** (Oct. 119, Jan. 250)
Calcium mg/L	**53.27** (Feb.47.0, May. 56.6)	**34.69** (Sept.31.2, Aug. 44.0)	**44.57** (Oct.35.3, Jan. 45.9)
To. Hardness mg/L	**179.7** (Feb. 146, May. 182)	**154.2** (Jun. 117, Sept. 162)	**164.8** (Jan. 137,Oct. 175)
Chloride mg/L	**66.68** (Feb. 60.4, May. 71.2)	**36.34** (July. 25.5, Jun. 54.7)	**56.38** (Oct. 25.2, Jan. 64.6)
PO4 mg/L	**2.89** (Feb. 2.2, Apr. 2.96)	**4.44** (Jun., 3.24, Aug. 4.84)	**2.63** (Jan. 1.96, Nov. 2.98)
SO4 mg/L	**46.97** (May. 31.2, Feb. 57.0)	**33.38** (Aug. 23.8, Jun. 47.5)	**27.39** (Jan. 13.1, Oct. 49.7)

Note: Values in parentthes indicate min and max for the season

Seasonal Average values of Physico-Chemical parameter of Majalgaon Fresh water Reservoir around Marathwada region during Feb 2010 to Jan 2011.

Season **Parameter**	**Summer** **(Feb.2010-May2010) Average Value**	**Monsoon** **(Jun.2010-Sept.2010) Average Value**	**Winter** **(Oct.2010-Jan.2011) Average Value**
Air Temp. (°C)	**29.58** (Feb. 27.1, May. 32.7)	**27.75** (Aug. 24.3, Sep. 28.9)	**22.59** (Nov. 19.6, Jan. 25.0)
Water Temp.(°C)	**25.74** (Mar.23.3, May.27.7)	**21.17** (Sept. 17.9, Jun. 25.7)	**20.39** (Dec. 16.6, Oct.24.7)
Transparency (cm)	**15.18** (Feb.14.6, May. 16.9)	**14.8** (Sept. 14.1, July. 16.6)	**15.82** (Nov. 12.1, Jan. 15.1)
pH	**7.37** (Mar. 7.05, May. 8.03)	**6.34** (Aug.5.41, Sept. 7.7)	**7.05** (Jan. 7.08, Nov. 8.35)
DO mg/L	**4.46** (Apr. 5.02, Feb. 6.68)	**6.21** (Jun.5.78, Sept.7.28)	**7.72** (Jan. 6.19, Oct. 7.63)
Free CO2 mg/L	**72.05** (May. 55, Mar. 90.2)	**41.3** (Sept. 29.1, Jun. 50.6)	**19.9** (Dec. 19.8, Jan. 31.9)
To. Alkalinity mg/L	**227.3** (Feb. 213, May. 348)	**119** (Jul. 125, Sept. 239)	**174.8** (Oct. 253, Jan. 291)
Calcium mg/L	**51.27** (Feb. 49.1, May. 64.2)	**36.69** (Sept. 26.5, Aug. 42.5)	**40.57** (Oct. 31.3, Jan. 43.2)
To. Hardness mg/L	**169.7** (Feb. 131, Apr. 170)	**144.2** (Sept. 131, Aug. 157)	**144.8** (Oct. 129, Jan. 150.5)
Chloride mg/L	**68.58** (Feb. 60.3, May 72)	**38.34** (Sept. 29.8 , Jun. 39.4)	**55.38** (Oct. 37.8, Jan. 57)
PO4 mg/L	**2.39** (Feb. 2.12, May. 3.4)	**3.44** (Jun. 3.14, Aug. 3.78)	**2.13** (Jan. 1.9, Oct. 2.98)
SO4 mg/L	**41.97** (Feb. 32.9, May. 42.7)	**35.38** (Sept. 29.6, Jul. 48.5)	**21.39** (Jan. 19.5, Oct. 23.8)

Note: Values in parentthes indicate min and max for the season